



Precise Research.  
Proven Results.

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## Analytical Report

TACONIC

Analysis of PFOA in Water Samples

Exygen Report No. L0004258

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***Testing Laboratory***

Exygen Research  
3058 Research Drive  
State College, PA 16801

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***Requester***

Tim Kosto  
TACONIC  
136 Coonbrook Road  
Petersburgh, New York, 12138  
Phone: 518-658-3202

1/2005



3058 Research Drive  
State College, PA 16801, USA

T: 800.281.3219  
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## **1 Introduction**

Results are reported for the analysis of perfluorooctanoic acid (PFOA) in water samples received at Oxygen from Tim Kosto at TACONIC. The Oxygen project number assigned to the samples is L0004258. Table I lists the target analytes quantitated for the samples.

Table I. Target Analytes for Quantitation

<u>Parameter</u>	<u>Acronym</u>	<u>Formula</u>
Perfluorooctanoic acid	PFOA	C <sub>7</sub> F <sub>15</sub> COOH

## **2 Sample Receipt**

Five samples were received at Oxygen in 500 mL clear plastic bottles. A copy of all sample log-in information is presented in Attachment A.

The samples were received on 01/14/05. The samples were shipped on ice via UPS. The samples were stored refrigerated from time of receipt until analysis.

## **3 Methods - Analytical and Preparatory**

### **3.1 Sample Preparation**

Solid phase extraction (SPE) was used to prepare the samples for LC/MS/MS analysis. A forty milliliter portion of each sample was transferred to a C<sub>18</sub> SPE cartridge. The cartridge was eluted with 5 mL of 100% methanol. This treatment resulted in an eight-fold concentration of the samples prior to analysis. A portion of the extract was transferred to autosampler vials and analyzed using electrospray LC/MS/MS.

### **3.2 Sample Analysis by LC/MS/MS**

In High Pressure Liquid Chromatography (HPLC), an aliquot of extract is injected and passed through a liquid-phase chromatographic column. Based on the affinity of the analyte for the stationary phase in the column relative to the liquid mobile phase, the analyte is retained for a characteristic amount of time. Following HPLC separation, mass spectrometry provides a rapid and accurate means for analyzing a wide range of organic compounds. Molecules are ionized, fragmented, and detected. The ions characteristic of the compounds are observed and quantitated against extracted standards.

An HP1100 system interfaced to a Micromass Quattro system was used to analyze the sample extracts for quantitation. A gradient elution through a Jones Chromatography Genesis C-8 50 x 2.1 mm x 4 $\mu$ m column was used for separation.

The following gradient was performed:

Mobile Phase (A): 2mM Ammonium Acetate in Water  
Mobile Phase (B): Methanol

Time	%A	%B
0.0	60	40
0.4	60	40
1.0	10	90
7.0	10	90
7.5	0	100
9.0	0	100
9.5	60	40
13.5	60	40
14.0	60	40

The following parameters were used for operation of the mass spectrometer:

Parameter	Setting
Ionization Mode	Electrospray
Polarity	Negative
Transitions Monitored	413->369 (PFOA)
Gas Temperature	350°C
Drying Gas (N2)	7.0 L/min

## 4 Analysis

### 4.1 Calibration

A 7-point calibration curve was analyzed throughout the analytical sequence for PFOA. The calibration points were prepared at 0, 25, 50, 100, 250, 500, and 1000 ng/L (ppt) for LC/MS/MS analysis. Calibration standards are prepared using the same SPE procedure used for samples. The instrument response versus the concentration was plotted for each point. Using linear regression with 1/x weighting, the slope, y-intercept and coefficient of determination ( $r^2$ ) were determined. A calibration curve is acceptable if  $r^2 \geq 0.985$ .

For the results reported here, calibration criteria were met. The calibration curves are included in the raw data in Attachment C.

### 4.2 Surrogates

Surrogates were not used in this study.

#### **4.3 Laboratory Control Spikes**

Laboratory control spikes in the analytical set were prepared by adding a known concentration of the analyte to laboratory water. Laboratory control spikes are used to assess method accuracy. The laboratory control spikes must show recoveries between 70-130% or the data is rejected. For the results reported here, the laboratory control spikes were within the acceptable range.

#### **4.4 Matrix Spikes**

A matrix spike was prepared for each sample in the analytical set by adding a known concentration of the target analyte to a separate sample. Matrix spikes are used to assess method accuracy in the matrix. The matrix spikes should show recoveries between 70-130%. For the results reported here the matrix spike for 04-10-03A,B was within the acceptable range. For the other three samples, 04-10-01A,B, 04-10-02A,B and 04-10-04, the amount of PFOA found in the sample greatly exceeded the spiking level and an accurate recovery could not be calculated.

#### **4.5 Sample Related Comments**

Each sample was extracted in duplicate and analyzed. Duplicate sample results are reported along with the sample results in Attachment B.

### **5 Data Summary**

Please see Attachment B for a detailed listing of the analytical results. Results are reported in parts per billion (ng/mL) for the analyte, PFOA.

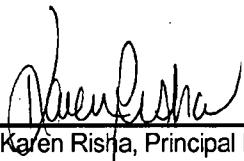
### **6 Data/Sample Retention**

Samples are disposed of one month after the report is issued unless otherwise specified. All electronic data is archived on retrievable media and hard copy reports are stored in data folders maintained by Oxygen. Hardcopy data is stored for a minimum of five years. The client will be notified 30 days prior to the disposal of hardcopy data.

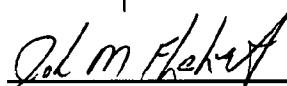
### **7 Attachments**

- 7.1 Attachment A: Chain of Custody
- 7.2 Attachment B: Analytical Results
- 7.3 Attachment C: Raw Analytical Data

**8. Signatures**

  
Karen Risha, Principal Investigator

01/24/05  
Date

  
John M. Flaherty, Vice President

1/24/05  
Date

A

TAC EPA 00

000547

## Login

Login Group: L0004258

Login #:	4368	Conform COC Sample:	True
Project:	P0001069	Conform COC:	True
Company Name:	TACONIC	Conform Sample:	True
Submitted By:	Tim Kosto	Conform Request:	True
Login Type:	Immediate Receipt of Samples		
Started:	True		
Date Start:	01/14/2005		
Due Date:	01/24/2005		
Received Date:	01/14/2005		
Received By:	Ammerman, Mark		
Spread Sample:			
Label:			
Exxygen SD/PI:	Risha, Karen		
Project Title/Type:	Analysis of APFO in Water Samples by LCMSMS / ROUTINE		
Login Notes:			
Conform Notes:			

### Packages / Containers

<u>Package</u>	<u>Carton</u>	<u>Mail Date / Condition</u>		<u>Shipper / ID</u>	<u>Temp. Control/Temp.</u>	<u>Direction / Handled By</u>
PK0005108		1/14/2005 10:42:46AM Package & Contents Uncompromised		UPS 1Z1207900143946801	Wet Ice 0.8	RECEIVED Ammerman, Mark
Container #	<u>Gross Weight</u>	<u>pH</u>	<u>Container Type</u>	<u>Preservative</u>	<u>Mfg. Lot</u>	<u>Mfg. ID</u>
C0056487	516.50 g		500 ml Clear Plastic Narrow	NONE		
C0056488	599.40 g		500 ml Clear Plastic Narrow	NONE		
C0056489	620.90 g		500 ml Clear Plastic Narrow	NONE		
C0056490	614.10 g		500 ml Clear Plastic Narrow	NONE		
C0056491	593.30 g		500 ml Clear Plastic Narrow	NONE		

### Samples

<u>Sample ID</u>	<u>Container</u>	<u>Matrix</u>	<u>Fraction</u>	<u>Sample</u>	<u>Date Sampled</u>	<u>Date Received</u>	<u>Date Due</u>
L0004258-0001	C0056487	LIQUID	Water	04-13-01	01/13/2005	01/14/2005	01/24/2005
L0004258-0002	C0056488	LIQUID	Water	04-13-02	01/13/2005	01/14/2005	01/24/2005
L0004258-0003	C0056489	LIQUID	Water	04-13-03	01/13/2005	01/14/2005	01/24/2005
L0004258-0004	C0056490	LIQUID	Water	04-13-04	01/13/2005	01/14/2005	01/24/2005
L0004258-0005	C0056491	LIQUID	Water	04-13-05	01/13/2005	01/14/2005	01/24/2005

# Login

Login Reviewed By: EC

Date/Time: 1-14-05 1045



## **CHAIN OF CUSTODY/ANALYSIS REQUEST FORM**

**Oxygen Research Sample Receiving • 3048 Research Drive • State College, PA 16801, USA  
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Page \_\_\_\_\_ of \_\_\_\_\_

## PROJECT INFORMATION

**Client (name & address):**

JIM KOSTO  
136 COON BROOK ROAD  
PETERSBURGH, NY 12138

Phone: (518) 658-3202 x. 296

Fax: (518) 658-3204

Sampler: T. Losso

**Project Manager (Name & E-mail Address):**

**Project Name:**

P.O. #:

### **Quotation #:**

**Please fill out this form *completely* to ensure correct analysis and proper handling of your samples.**

## **ANALYSES REQUESTED**

# SAMPLE ANALYSIS

**LAB USE ONLY**

# CHAIN OF CUSTODY

Relinquished by	Date	Time
Tim Kosso	1/3/05	4:45 PM

Cooler ID # *cf0000101* Cooler Temp. (°C) *0.8*

Received by	Date	Time
	01/14/05	10:15

**LAB USE ONLY**

**OTHER INFORMATION**

## PROJECT REQUIREMENTS

## **Results Deadline:**

---

## Laboratory Report Options:

- Sample results only
  - Add case narrative
  - Add quality control summary
  - Add calibration summary
  - Add raw data
  - Other

TAC EPA 00559

000550



# **CHAIN OF CUSTODY/ANALYSIS REQUEST FORM**

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Fax: (518) 658-3204

Sampler: T. Körte

**Project Manager (Name & E-mail Address):**

**Project Name:**

P.O. #:

### **Quotation #:**

Please fill out this form *completely* to ensure correct analysis and proper handling of your samples.

#### **ANALYSES REQUESTED**

# SAMPLE ANALYSIS

**LAB USE ONLY**

# CHAIN OF CUSTODY

Relinquished by	Date	Time
Tim Koste	1/13/05	4:45 p.m.
	/	
	/	

Received by	Date	Time
	- collector	1015

**OTHER INFORMATION**

## PROJECT REQUIREMENTS

## Results Deadline:

## **Laboratory Report Options:**

- Sample results only
  - Add case narrative
  - Add quality control summary
  - Add calibration summary
  - Add raw data
  - Other

TAC EPA 00560

000551



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Tim Kesten  
136 Concourse Road  
Poughkeepsie, NY 12575

Phone: (516) 658-3202 x 296

Fax: (416) 658-3201

Sampler: T. Kiser

**Project Manager (Name & E-mail Address):**

**Project Name:**

P.O. #:

**Quotation #:**

**Please fill out this form completely to ensure correct analysis and proper handling of your samples.**

## **ANALYSES REQUESTED**

# SAMPLE ANALYSIS

LAB USE ONLY

## **CHAIN OF CUSTODY**

Relinquished by	Date	Time
Tim Kessie	1/13/05	4:45 p.m.
		"
		"
		"

## **OTHER INFORMATION**

Cooler ID # 66 Cooler Temp. (°C) 0.0

Received by	Date	Time
<i>J. S.</i>	<i>1/15/98</i>	<i>10:15</i>

**LAB USE ONLY**

## PROJECT REQUIREMENTS

### **Results Deadline:**

---

## **Laboratory Report Options:**

- Sample results only.
  - Add case narrative
  - Add quality control summary
  - Add calibration summary
  - Add raw data
  - Other

TAC.EPA.00561

000552

ACONIC  
5131 65th 3202  
36 COONBROOK ROAD  
ETTERSBURGH PA 12138

22 LBS

1 OF 1

SHIP TO:

RECEIVING(SAMPLE)  
OXYGEN RESEARCH  
3048 RESEARCH DRIVE  
STATE COLLEGE PA 16801-2782

PA 168 0-10

UPS NEXT DAY AIR

TRACKING # 3T12079036143346801

1

BILLING: P/P

REF ID: TIM K.

TAC EPA 00562

000553

B

TAC EPA 00

000554

**Summary of PFOA in Water Samples**

Sample ID	Analyte Found ppb (ng/mL)
	PFOA
04-13-01	ND
04-13-01*	ND
04-13-02	ND
04-13-02*	ND
04-13-03	4.20
04-13-03*	4.30
04-13-04	2.28
04-13-04*	2.21
04-13-05	0.562
04-13-05*	0.516

\*Laboratory Duplicate

ND = Not Detected. Result is less than 0.0500 ng/mL.

1/13/05

PFOA ANALYSIS

SAMPLE ID

LOCATION

04-13-01	RPI Decanted Water	ND
04-13-02	161 SHOFEST ROAD	ND
04-13-03	147 COONROOK RD (Loc.)	4.3
04-13-04	6 RUSSELL ROAD	(2.2)
04-13-05	BUILDING 1	(0.56)

4/15/05

Fluorosilicone Evaluations For Gasko

Dow Corning LS 5-8761 Fluorosilicone

04-13-06

20.09 g LS 5-8761 Lot 000 2224489  
 20.18 g 2-BUTYNNON Sigma Lot. 00952TC

04-13-07

20.71 g LS 5-8761 Lot 000 2224489  
 20.85 g 4-methyl Z-pentene Batch: 00955HC

Both Samples Prepared At ~ 10:30 A.M.

After 2 hours, both solutions had partially solvated.  
 stirring with a Torge depressor resulted in climbing and  
 a thicker band of solvated fluorosilicones on the table.



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### Recovery Summary for PFOA in Water Samples

#### PFOA

Sample Description	Amount Spiked (ng/mL)	Amt Found in Sample (ng/mL)	Amount Recovered (ng/mL)	Recovery (%)
01-13-01 500 ng/mL Spike	500	ND	479	96
01-13-02 500 ng/mL Spike	500	ND	541	108
01-13-03 500 ng/mL Spike	500	4.20	478	95
01-13-04 500 ng/mL Spike	500	2.28	559	111
01-13-05 500 ng/mL Spike	500	0.562	578	115

ND = Not Detected. Result is less than 0.0500 ng/mL.

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**TAC EPA 00566**

000557

TAC EPA 005

000558

**RAW DATA REPORT**

Sponsor Study No:	NA	Limit of Quantitation:	50 ng/L	Set No:	011805B
Oxygen Study No:	L4258	Injection Volume:	15 µL	Analyst:	Karen Risha
Analyte:	APFO	Matrix:	Water	Instrument Type:	LC/MS/MS Unit # 6
Ions Monitored:	413 > 369	Sample Volume Extracted:	0.4 mL	Extraction Date:	01/18/05
Site:	NA	Final Volume:	5.0 mL	Analyzed on:	01/18-19/05

Oxygen ID	Sponsor ID	Sample Code	Run No.	Std.			PFOA Found (ng/L)	APFO Found (ng/L)	Amount	
				Conc. (ng/L)	Dilution Factor	Peak Area			PFOA Added (ng/L)	Recovery (%)
XC011805-0	-	CS	011805B-7001	0	-	0	-	-	-	-
XC011805-1	-	CS	011805B-7002	25	-	10551	-	-	-	-
XC011805-2	-	CS	011805B-7003	50	-	19961	-	-	-	-
XC011805-3	-	CS	011805B-7004	100	-	40221	-	-	-	-
XC011805-4	-	CS	011805B-7005	250	-	91453	-	-	-	-
XC011805-5	-	CS	011805B-7006	500	-	178663	-	-	-	-
XC011805-6	-	CS	011805B-7007	1000	-	354237	-	-	-	-
Methanol Wash	-	C	011805B-7008	-	-	4823	-	-	-	-
Reagent Control	NA	C	011805B-7009	-	1	0	ND	ND	-	-
Reagent Spk A	NA	LCS	011805B-7010	-	1	18862	46.6	48.5	50	93
Reagent Spk B	NA	LCS	011805B-7011	-	1	174743	474	493	500	95
XC011805-1	-	CS	011805B-7012	25	-	10229	-	-	-	-
XC011805-2	-	CS	011805B-7013	50	-	19854	-	-	-	-
L4258-1 Spk C	04-13-01	LF	011805B-7014	-	1000	176397	479000	499000	500000	96^
L4258-2 Spk D	04-13-02	LF	011805B-7015	-	1000	199068	541000	563000	500000	108^
L4258-3 Spk E	04-13-03	LF	011805B-7016	-	1000	176081	478000	498000	500000	95^
L4258-4 Spk F	04-13-04	LF	011805B-7017	-	1000	205675	559000	582000	500000	111^
L4258-5 Spk G	04-13-05	LF	011805B-7018	-	1000	212804	578000	602000	500000	115^
XC011805-3	-	CS	011805B-7019	100	-	41370	-	-	-	-
L4258-1	04-13-01	S	011805B-7020	-	1000	860	*	-	-	-
L4258-1 Rep	04-13-01	S	011805B-7021	-	1000	1000	*	-	-	-
L4258-2	04-13-02	S	011805B-7022	-	1000	653	*	-	-	-
L4258-2 Rep	04-13-02	S	011805B-7023	-	1000	527	*	-	-	-
L4258-3	04-13-03	S	011805B-7024	-	1000	2803	*	-	-	-
L4258-3 Rep	04-13-03	S	011805B-7025	-	1000	2785	*	-	-	-
XC011805-4	-	CS	011805B-7026	250	-	97901	-	-	-	-
L4258-4	04-13-04	S	011805B-7027	-	1000	1592	*	-	-	-
L4258-4 Rep	04-13-04	S	011805B-7028	-	1000	1607	*	-	-	-
L4258-5	04-13-05	S	011805B-7029	-	1000	950	*	-	-	-
L4258-5 Rep	04-13-05	S	011805B-7030	-	1000	662	*	-	-	-
XC011805-5	-	CS	011805B-7031	500	-	189392	-	-	-	-
XC011805-6	-	CS	011805B-7032	1000	-	372787	-	-	-	-

PFOA Found (ng/L) = (peak area - intercept) / slope x DF

Recovery (%) =  $\frac{[\text{PFOA found (ng/L)} - \text{PFOA found in control (ng/L)}]}{\text{amount PFOA added (ng/L)}} \times 100$

Standard Curve : Linear (1/x weighted)

Intercept = 1863.85

Slope = 364.741

Coef. Of Det. = 0.998440

APFO Found (ng/L) = PFOA found (ng/L) x (MW APFO (431) / MW PFOA (414))

CS = Calibration standard

LF = Lab fortified sample

CK = Check Standard

C = Control sample

FF = Field fortified sample

ND = Not detected = Response between 0 and 50 ng/L

S = Sample

LCS = Laboratory Control Spike

\*Sample was over-diluted. See data set 011805BR.

~Sample was corrected using the data found in set 011805BR.

Spreadsheet prepared by: kgf, 01/24/05



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### Internal Chain of Custody/Fortification Sheet

Exygen Study Number: L4258

Matrix: Water

Sponsor Study/Protocol No: NA

The samples listed below were removed from refrigerator No. 32

Time 0830

Date 01/18/05

Initials CEE

CLIENT SAMPLE ID	EXYGEN ID NUMBER	VOLUME (mL)	FORTIFICATION (ng)
na	Reagent Control	40.0	-
na	Reagent Spk A	40.0	2.0
na	Reagent Spk B	40.0	20.0
04-13-01	L4258-1 Spk C	40.0	20000.0
04-13-02	L4258-2 Spk D	40.0	20000.0
04-13-03	L4258-3 Spk E	40.0	20000.0
04-13-04	L4258-4 Spk F	40.0	20000.0
04-13-05	L4258-5 Spk G	40.0	20000.0
04-13-01	L4258-1	40.0	-
04-13-01	L4258-1 Rep	40.0	-
04-13-02	L4258-2	40.0	-
04-13-02	L4258-2 Rep	40.0	-
04-13-03	L4258-3	40.0	-
04-13-03	L425832 Rep	40.0	-
04-13-04	L4258-4	40.0	-
04-13-04	L4258-4 Rep	40.0	-
04-13-05	L4258-5	40.0	-
04-13-05	L4258-5 Rep	40.0	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

	Spiking Solution Used	Volume Used for Spiking	Initial/Date
Reagent Spk A	F122004-5 (10 ng/mL)	200 µL (200 µL micropipet)	CEE 01/18/05
Reagent Spk B	F122004-4 (100 ng/mL)	200 µL (200 µL micropipet)	CEE 01/18/05
L4258-1 Spk C	F122004-1 (100000 ng/mL)	200 µL (200 µL micropipet)	CEE 01/18/05
L4258-2 Spk D	F122004-1 (100000 ng/mL)	200 µL (200 µL micropipet)	CEE 01/18/05
L4258-3 Spk E	F122004-1 (100000 ng/mL)	200 µL (200 µL micropipet)	CEE 01/18/05
L4258-4 Spk F	F122004-1 (100000 ng/mL)	200 µL (200 µL micropipet)	CEE 01/18/05
L4258-5 Spk G	F122004-1 (100000 ng/mL)	200 µL (200 µL micropipet)	CEE 01/18/05

All samples were measured:

Time 1020

Date 01/18/05

Initials CEE

After measuring samples were returned to refrigerator No. 32

Time 1545

Date 01/18/05

Initials CEE

Comments:

Analysis Summary:

Data Set: 011805B

Initials/Date: CEE 01/18/05

Data Set: 011805BR

Initials/Date: CEE 01/18/05

Data Set: -

Initials/Date: -

Set extraction/analysis data verified by: JMF

Date: 1/24/05

July 26, 2004

TAC EPA 00569

000560



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### SAMPLE EXTRACTION AND ANALYSIS TRACKING SHEET

EXYGEN STUDY NUMBER: L4258  
MATRIX: Water

METHOD: ss  
ANALYTICS: PFOA

PROTOCOL NUMBER: NA

Client ID	Exygen ID	STEP 1	STEP 2	Dilutions (mL/mL)	STEP 3	Dilutions (mL/mL)	STEP 4	Reagents/Materials	Lot #
na	Reagent Control	1	1	-	1	-	-	Methanol	44317
na	Reagent Spk A			-		-	-	C18 SPE	004334309B
na	Reagent Spk B	.		-		-	-	Water	44296
04-13-01	L4258-1 Spk C			(0.1/10, 0.1/0)		-	-	-	-
04-13-02	L4258-2 Spk D			(0.01/10, 0.1/0)		-	-	-	-
04-13-03	L4258-3 Spk E			(0.01/10, 0.1/0)		-	-	-	-
04-13-04	L4258-4 Spk F			(0.01/10, 0.1/0)		-	-	-	-
04-13-05	L4258-5 Spk G			(0.01/10, 0.1/0)		-	-	-	-
04-13-01	L4258-1			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-01	L4258-1 Rep			(0.01/10, 0.1/0)	(2) 0.1/1.0			Initials/Date	CEE 01/18/05
04-13-02	L4258-2			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-02	L4258-2 Rep			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-03	L4258-3			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-03	L425832 Rep			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-04	L4258-4			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-04	L4258-4 Rep			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-05	L4258-5			(0.01/10, 0.1/0)	(2) 0.1/1.0			-	-
04-13-05	L4258-5 Rep	↓	↓	(0.01/10, 0.1/0)	V (2) 0.1/1.0	↓			
								HPLC	
								Methanol	44253
								Ammonium Acetate	742476
								Water	44266
**Initials/Date		CEE 01/18/05	CEE 01/18/05	01/18/05	01/18/05	01/20/05	01/20/05	Initials/Date	01/18/05

STEP 1: SPE column clean-up

STEP 2: Final volume to 5 mL collected in 15 mL polypropylene tubes

STEP 3: LC/MS/MS analysis

STEP 4: LC/MS/MS reanalysis.

\*\*Initials and date under each step indicates the personnel that performed this step.

\$\$ Method of Analysis for the Determination of Perfluorooctane sulfonate (PFOS), Perfluorooctane sulfonyl amide (PFOSA), and Perfluorooctanoate (POAA) in Water

COMMENTS:

Final extracts stored in refrigerator 32 Initials: CEE Date: 01/18/05

Jul 18, 2005  
TAC-EPA 00570

000561

(1) AF = 1000 Rf 01/18/05

(2) DILUTION ON 01/20/05 IS IN ADDITION TO DILUTION ON 01/18/05. Rf 01/20/05



3058 Research Drive  
State College, PA 16801

Phone: 814-272-1039  
Fax: 814-231-1580

Exygen STUDY NO. L4258

### PREPARATION OF EXTRACTED CALIBRATION STANDARDS

Protocol No.: None  
Method No.: 01M-008-046\*

Exygen Study No.: NA  
Analytes: PFOA

Matrix: Type I Water^  
Sample Vol: 40 mL

Sponsor Sample ID	Exygen Sample ID	Sample Description	Fort. Solution ID	Fort. Soln. Conc. (ng/mL)	Fort. Volume (µL)	Micropipet used (µL)	Fort. Level (ppt)	Final Solution ID # **	Reagents/ Materials	Lot #
NA	0106020	Type I Water^	-	-	-	-	-	XC011805-0	Methanol	44317
NA	0106020	Type I Water^	F122004-5	10	100	200	25	XC011805-1	C18 SPE	0043343098
NA	0106020	Type I Water^	F122004-5	10	200	200	50	XC011805-2	Type I Water	NA
NA	0106020	Type I Water^	F122004-5	10	400	200	100	XC011805-3	-	-
NA	0106020	Type I Water^	F122004-4	100	100	200	250	XC011805-4	-	-
NA	0106020	Type I Water^	F122004-4	100	200	200	500	XC011805-5	-	-
NA	0106020	Type I Water^	F122004-4	100	400	200	1000	XC011805-6	-	-
NA	0106020	Type I Water^	F011805-2	100	100	200	250	XC011805-7		
-	-	-	-	-	-	-	-		Initials/Date:	CEE 01/18/05

Vertical arrows in a column indicate identical values.

\*\*This must be a unique number. Use this system: Extracted Calibration Soln ID #: XCMMDDYY-0,1,2,3, etc.

Samples removed from ~~refrigerator~~ /freezer # 32 Time: 0830

Initials/Date: CEE /01/18/05

40 mL of each sample measured using a 50 mL graduated cylinder.

Initials/Date: CEE /01/18/05

After measuring, samples returned to ~~refrigerator~~ /freezer # 32 Time: 1545

Initials/Date: CEE /01/18/05

Samples fortified:

Initials/Date: CEE /01/18/05

SPE clean-up:

Initials/Date: CEE /01/18/05

Final volume adjusted to 5 mL:

Initials/Date: CEE /01/18/05

Extracts placed in refrigerator # 32

Initials/Date: CEE /01/18/05

"THIS IS AN EXACT COPY OF  
THE ORIGINAL DOCUMENT."

BY PF DATE 01/20/05

STANDARD EXPIRATION DATE: 2/1/2005

Comments: ^This type I water has been filtered through a hypercarb filter

\* Method of Analysis for the Determination of Ammonium Perfluorooctanoate (APFO) in Water.

July 10, 2001/0

TAC EPA 00571

000562

## Masslynx - Sample List

Page 1

Sample List: C:\MASSLYNX\Fluorochemicals.PRO\SampleDB\011805B Taconic Water.SPL  
 Printed: Tue Jan 18 14:39:15 2005

*KP 01/18/05*  
 Oxygen STUDY NO. L4258

Page Position: (1, 1)

Vial	File Name	LIMS ID	Client ID	Sample Description	Matrix	Sample Type	Conc (ng/L)	Conc B	Conc C	Test ID	DF	MS Method
1	81	011805B-7001	---	XC011805-0, 0 ng/L standard	---	Blank	500000	---	---	0	1	PFOA
2	82	011805B-7002	---	XC011805-1, 25 ng/L standard	---	Standard	25	---	---	0	1	PFOA
3	83	011805B-7003	---	XC011805-2, 50 ng/L standard	---	Standard	50	---	---	0	1	PFOA
4	84	011805B-7004	---	XC011805-3, 100 ng/L standard	---	Standard	100	---	---	0	1	PFOA
5	85	011805B-7005	---	XC011805-4, 250 ng/L standard	---	Standard	250	---	---	0	1	PFOA
6	86	011805B-7006	---	XC011805-5, 500 ng/L standard	---	Standard	500	---	---	0	1	PFOA
7	87	011805B-7007	---	XC011805-6, 1000 ng/L standard	---	Standard	1000	---	---	0	1	PFOA
8	92	011805B-7008	---	Methanol Wash	---	QC	250	---	---	0	1	PFOA
9	31	011805B-7009	---	Reagent Control	---	Blank	---	---	---	0	1	PFOA
10	32	011805B-7010	---	Reagent Spk A, 50 ng/L	---	QC	50	---	---	0	1	PFOA
11	33	011805B-7011	---	Reagent Spk B, 500 ng/L	---	QC	500	---	---	0	1	PFOA
12	82	011805B-7012	---	XC011805-1, 25 ng/L standard	---	Standard	25	---	---	0	1	PFOA
13	83	011805B-7013	---	XC011805-2, 50 ng/L standard	---	Standard	50	---	---	0	1	PFOA
14	34	011805B-7014	---	L4258-1 Spk C, 500000 ng/L, DF=1000	---	QC	500000	---	---	0	1000	PFOA
15	35	011805B-7015	---	L4258-2 Spk D, 500000 ng/L, DF=1000	---	QC	500000	---	---	0	1000	PFOA
16	36	011805B-7016	---	L4258-3 Spk E, 500000 ng/L, DF=1000	---	QC	500000	---	---	0	1000	PFOA
17	37	011805B-7017	---	L4258-4 Spk F, 500000 ng/L, DF=1000	---	QC	500000	---	---	0	1000	PFOA
18	38	011805B-7018	---	L4258-5 Spk G, 500000 ng/L, DF=1000	---	QC	500000	---	---	0	1000	PFOA
19	84	011805B-7019	---	XC011805-3, 100 ng/L standard	---	Standard	100	---	---	0	1	PFOA
20	39	011805B-7020	---	L4258-1, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
21	40	011805B-7021	---	L4258-1 Rep, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
22	41	011805B-7022	---	L4258-2, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
23	42	011805B-7023	---	L4258-2 Rep, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
24	43	011805B-7024	---	L4258-3, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
25	44	011805B-7025	---	L4258-3 Rep, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
26	85	011805B-7026	---	XC011805-4, 250 ng/L standard	---	Standard	250	---	---	0	1	PFOA
27	45	011805B-7027	---	L4258-4, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
28	46	011805B-7028	---	L4258-4 Rep, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
29	47	011805B-7029	---	L4258-5, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
30	48	011805B-7030	---	L4258-5 Rep, DF=1000	---	Analyte	---	---	---	0	1000	PFOA
31	86	011805B-7031	---	XC011805-5, 500 ng/L standard	---	Standard	500	---	---	0	1	PFOA
32	87	011805B-7032	---	XC011805-6, 1000 ng/L standard	---	Standard	1000	---	---	0	1	PFOA

TAC EPA 00572

000563

PF 01/18/05**HPLC Method MS Tune File Inj. Volume**

1	water	Fluorochems	15
2	water	Fluorochems	15
3	water	Fluorochems	15
4	water	Fluorochems	15
5	water	Fluorochems	15
6	water	Fluorochems	15
7	water	Fluorochems	15
8	water	Fluorochems	15
9	water	Fluorochems	15
10	water	Fluorochems	15
11	water	Fluorochems	15
12	water	Fluorochems	15
13	water	Fluorochems	15
14	water	Fluorochems	15
15	water	Fluorochems	15
16	water	Fluorochems	15
17	water	Fluorochems	15
18	water	Fluorochems	15
19	water	Fluorochems	15
20	water	Fluorochems	15
21	water	Fluorochems	15
22	water	Fluorochems	15
23	water	Fluorochems	15
24	water	Fluorochems	15
25	water	Fluorochems	15
26	water	Fluorochems	15
27	water	Fluorochems	15
28	water	Fluorochems	15
29	water	Fluorochems	15
30	water	Fluorochems	15
31	water	Fluorochems	15
32	water	Fluorochems	15

## LC/MS/MS SYSTEM AND OPERATING CONDITIONS

Sponsor Protocol No: NA

Exygen Study No: L4258

Instrument: Micromass Quattro Ultima (LC/MS/MS Unit #6)

Computer: COMPAQ Professional Workstation AP200

Software: Microsoft Windows NT: Version 4 Build 1381: Service Pack 5  
Micromass Limited: MassLynx 3.4 Build 004

HPLC Equipment: Hewlett Packard (HP) Series 1100

HP Bin Pump	HP Vacuum Degasser
HP Autosampler	HP Column Oven

HPLC Column: Genesis C-8, 5 cm x 2.1 mm i.d. x 4  $\mu$  (Exygen ID: MA0016984)  
**(JONESCHROMATOGRAPHY: Part No. FK5962E)**

Mobile Phase (A) : 2 mM Ammonium Acetate in Water

Mobile Phase (B) : Methanol

Analyst: Karen Risha  
Exygen Research  
3058 Research Drive, State College, PA 16801  
Phone: (814) 272-1039 FAX: (814) 231-1580

1/20/2005

**NOTE: The next 3 pages are computer generated printouts from  
the masslynx software program. The pages contain the  
instrument settings used for the analysis of this data set.**

All Handwritten Peak ID's by: 1/20/2005

---

Scanning Method Report

Page 1

Method: C:\MASSLYNX\FLUOROCHEMICALS.PRO\ACQUDB\PFOA  
Last Modified: Wed Mar 26 15:31:10 2003

Printed: Tue Jan 18 14:39:20 2005

*Kf 01/18/05*

---

Solvent Delay ( mins ) : 0.00

Analog Channel 4 : Unused

Function : 1 MRM of 1 Mass Pair ( ESP- )

Inter Channel Delay ( Secs ) : 0.03

Span ( Daltons ) : 0.00

Start Time ( Mins ) : 0.00

End Time ( Mins ) : 8.00

Repeats : 1

Channel	Parent	Daughter	Dwell (Secs)	Coll Energy (eV)	Cone ( V )
1	413.00	369.00	0.20	10	10

---

**Method Report**

Page 1

**Method File:**  
**Last Modified:**c:\masslynx\fluorochemicals.pro\acquidb\water  
Tuesday, January 18, 2005 14:31:00**Printed:**

Tuesday, January 18, 2005 14:39:24

bfp 01/18/05

---

**HP1100 LC Pump Initial Conditions****Solvents**

A%	60.0
B%	40.0
C%	0.0
D%	0.0

Flow (ml/min)	0.300
Stop Time (mins)	14.0
Min Pressure (bar)	0
Max Pressure (bar)	400
Oven Temperature Left(°C)	35.0
Oven Temperature Right(°C)	35.0

**HP1100 LC Pump Gradient Timetable**

The gradient Timetable contains 9 entries which are :

Time	A%	B%	C%	D%	Flow	Pressure
0.00	60.0	40.0	0.0	0.0	0.300	400
0.40	60.0	40.0	0.0	0.0	0.300	400
1.00	10.0	90.0	0.0	0.0	0.300	400
7.00	10.0	90.0	0.0	0.0	0.300	400
7.50	0.0	100.0	0.0	0.0	0.300	400
9.00	0.0	100.0	0.0	0.0	0.400	400
9.50	60.0	40.0	0.0	0.0	0.400	400
13.50	60.0	40.0	0.0	0.0	0.400	400
14.00	60.0	40.0	0.0	0.0	0.300	400

**HP1100 LC Pump External Event Timetable**

The Timetable contains 6 entries which are :

Time	Column Switch	Contact1	Contact2	Contact3	Contact4
Initial	Off	Off	Off	Off	Off
0.00	Off	On	Off	Off	Off
0.05	Off	Off	Off	Off	Off
0.10	Off	Off	On	Off	Off
7.95	Off	Off	Off	On	Off
8.00	Off	Off	Off	Off	Off

**HP1100 Autosampler Initial Conditions**

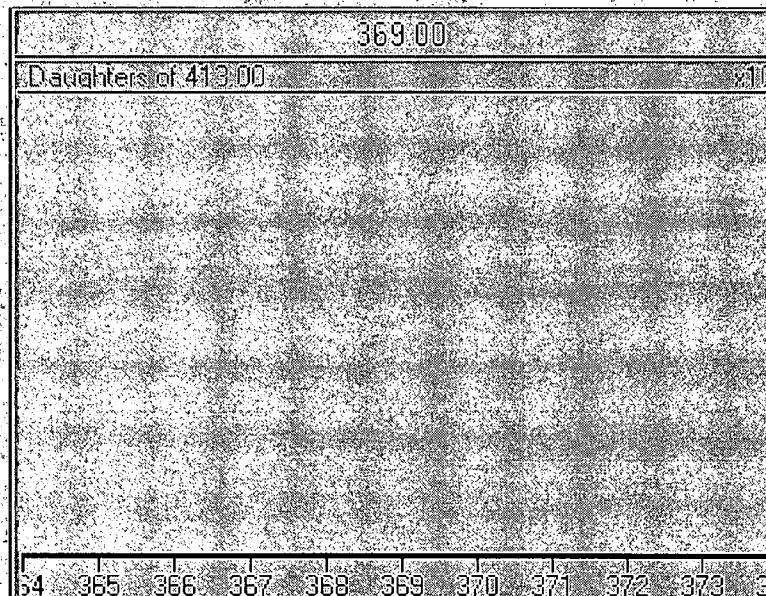
Draw Speed	200.0
Eject Speed ( $\mu$ l/min)	200
Draw Position (mm)	0.50
Stop Time (mins)	14.00
Injection Volume ( $\mu$ l)	15.0
Vial Number	23

## Tuning Method Report

Page 1

Method: C:\MASSLYNX\FLUOROCHEMICALS.PRO\ACQUDB\FLUOROCHEMS

Printed: Tue Jan 18 14:39:34 2005

*bf 01/18/05*

Dau 413.00

SOURCE (ESP-)	Set	Rdbk	Analyser	Set	Rdbk
Capillary	3.00	-2.93	LM Res 1	13.5	
Cone	10	-10	HM Res 1	13.5	
Hexapole 1	0.0		IEnergy 1	1.0	
Aperture 1	0.0		Entrance	-2	8
Hexapole 2	0.0		Collision	30	9
Source Block Temp.	100	99	Exit	2	11
Desolvation Temp.	300	299	LM Res 2	13.5	
			HM Res 2	13.5	
			IEnergy 2	2.0	
			Multiplier	650	-648
Pressures		Rdbk	Gas Flows		Rdbk
Analyser Vacuum		OFF	Cone Gas		187.8
Gas Cell		3.0e-3	Desolvation		776.2

Quantify Calibration Report

Page 1

Study No.: L4258, Set No.: 011805B, Ext.Date: 01/18/05, Analyst: K.Risha

Calibration: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\CurveDB\011805B Taconic Water

Last modified: Thu Jan 20 08:13:10 2005

Printed: Thu Jan 20 08:13:54 2005

bf 01/20/05

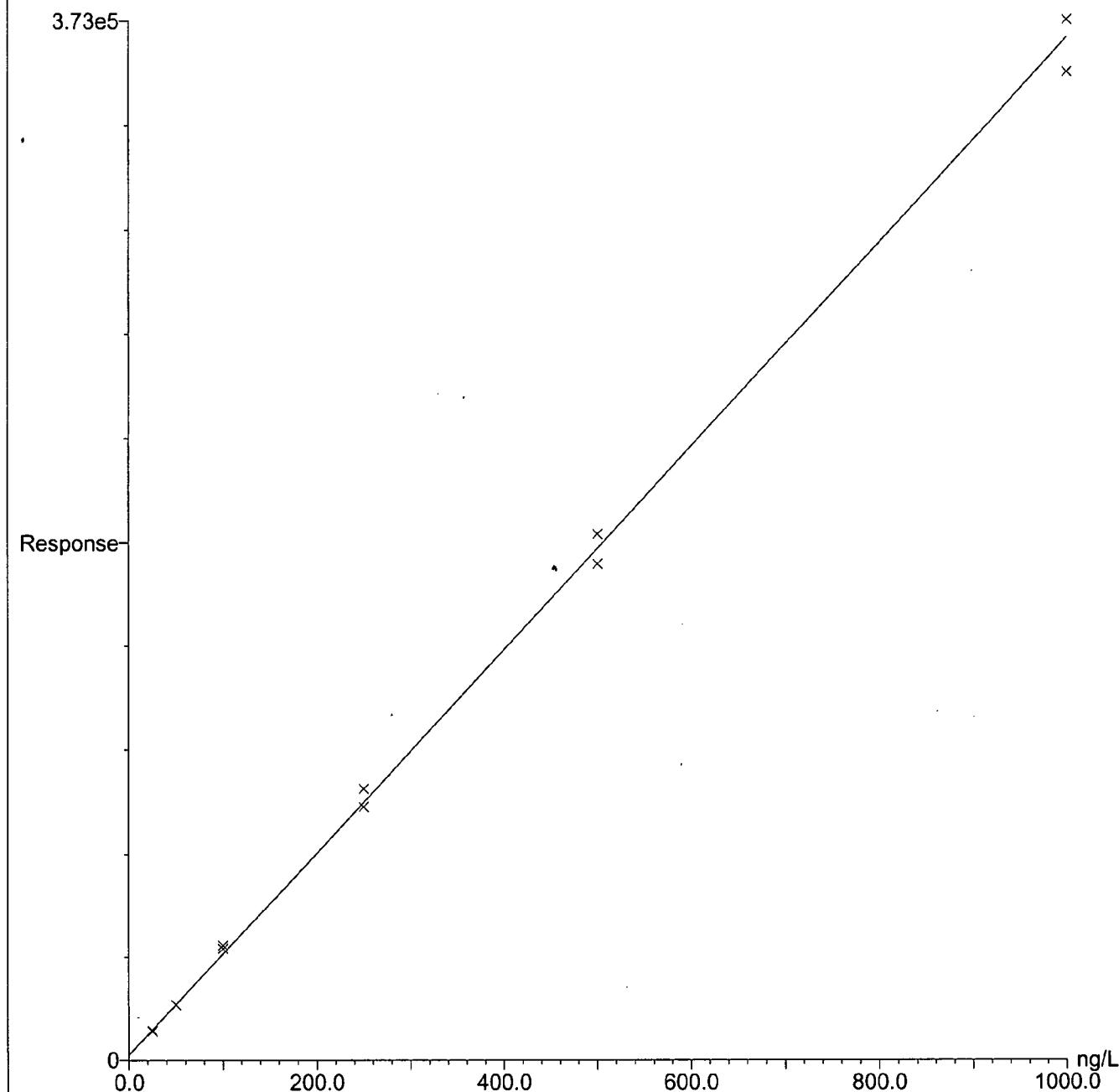
Compound 1 name: PFOA

Coefficient of Determination: 0.998440

Calibration curve:  $364.741 * x + 1863.85$

Response type: External Std, Area

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Quantify Sample Report

Page 1

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Initials KR

Date 01/20/05

Run# 011805B-7001 To 011805B-7032

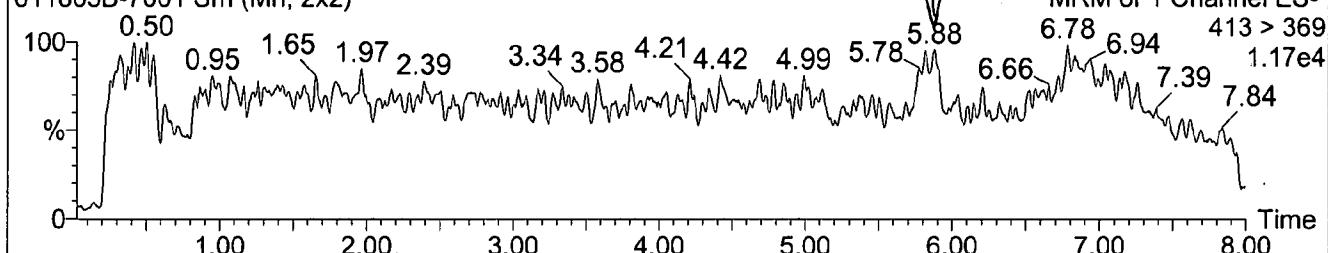
Name: 011805B-7001

Text:

1: PFOA

XC011805-0, 0 ng/L standard

011805B-7001 Sm (Mn, 2x2)



Quantify Sample Report

Page 2

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7002

Text:

1: PFOA

**XC011805-1, 25 ng/L standard**

18-Jan-2005 23:35:02

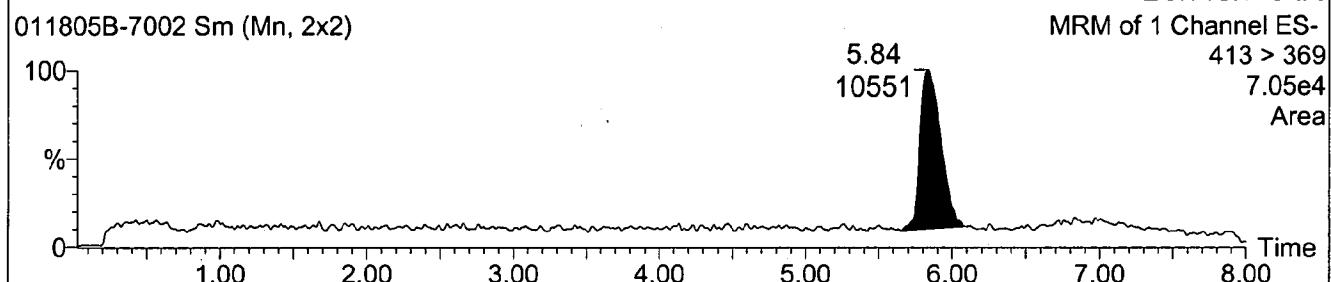
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

7.05e4

Area



**Quantify Sample Report**

Page 3

Study No.: L4258, Set No.: 011805B, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7003

Text:

1: PFOA

**XC011805-2, 50 ng/L standard**

18-Jan-2005 23:50:39

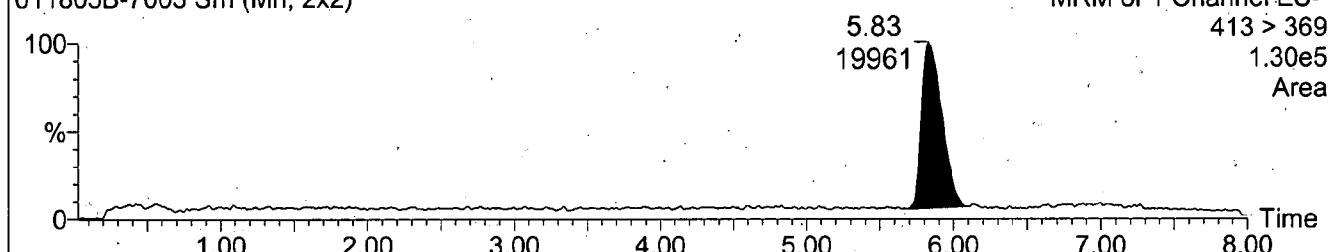
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.30e5

Area



Quantify Sample Report

Page 4

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

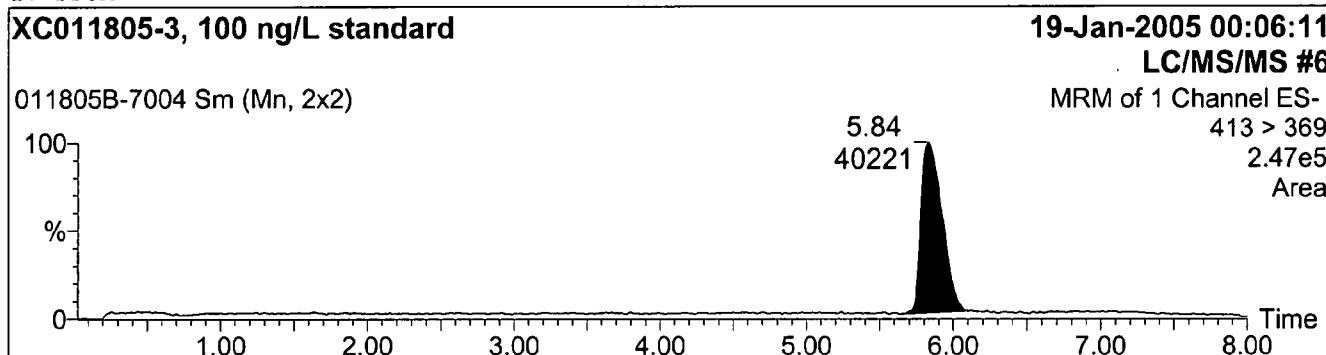
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7004

Text:

1: PFOA



Quantify Sample Report

Page 5

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

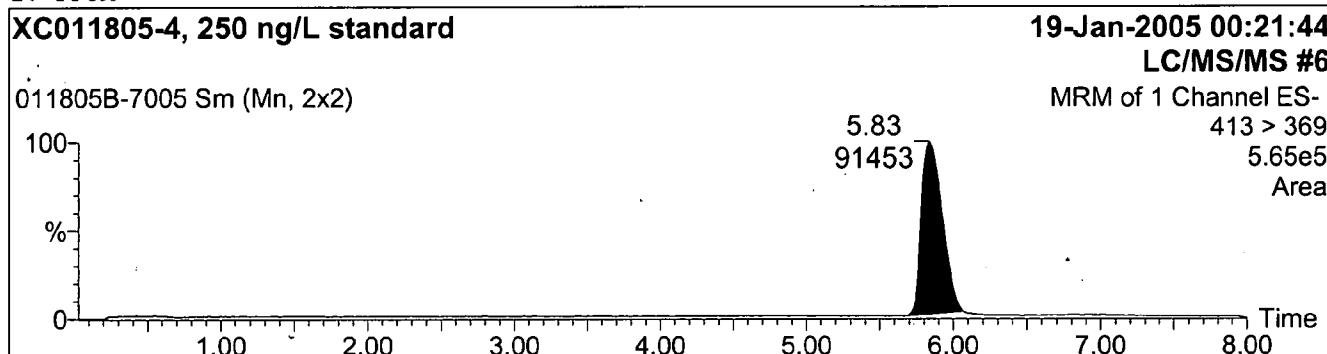
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7005

Text:

1: PFOA



Quantify Sample Report

Page 6

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

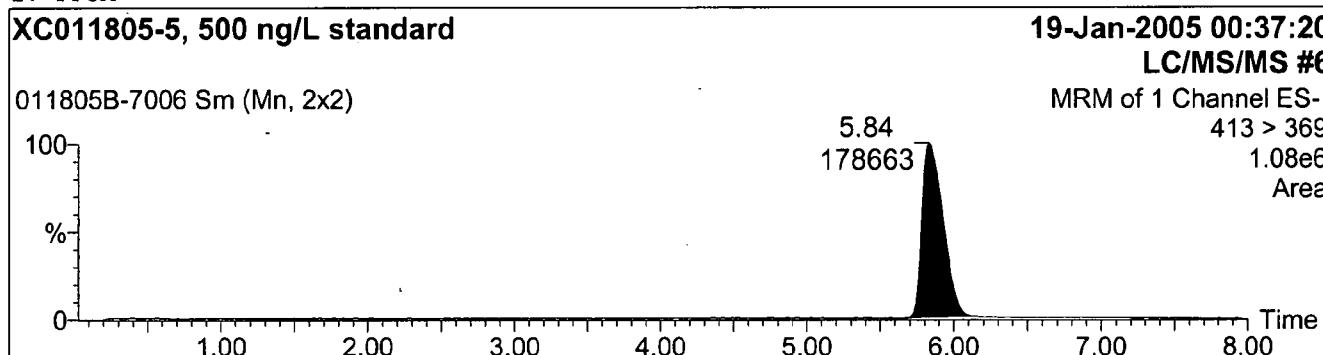
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7006

Text:

1: PFOA



Quantify Sample Report

Page 7

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

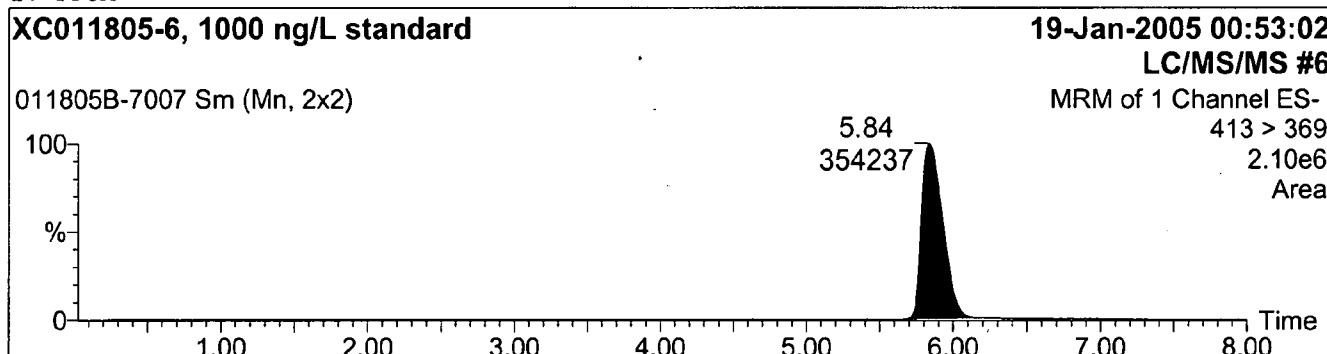
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7007

Text:

1: PFOA



Quantify Sample Report

Page 8

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7008

Text:

1: PFOA

**Methanol Wash**

19-Jan-2005 01:08:42

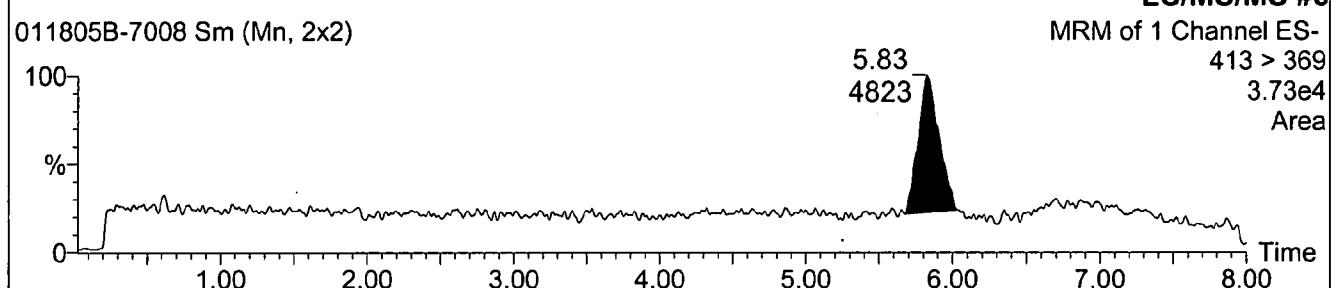
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

3.73e4

Area



Quantify Sample Report

Page 9

Study No.: L4258, Set No.: 011805B, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

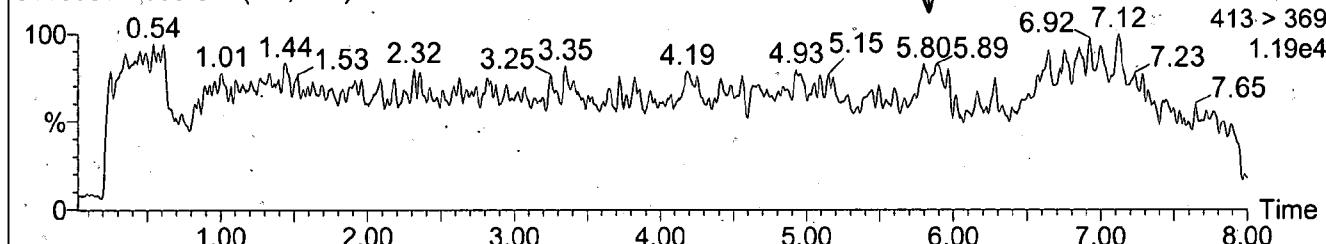
Name: 011805B-7009

Text:

1: PFOA

**Reagent Control**

011805B-7009 Sm (Mn, 2x2)



Quantify Sample Report

Page 10

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7010

Text:

1: PFOA

Reagent Spk A, 50 ng/L

19-Jan-2005 01:40:06

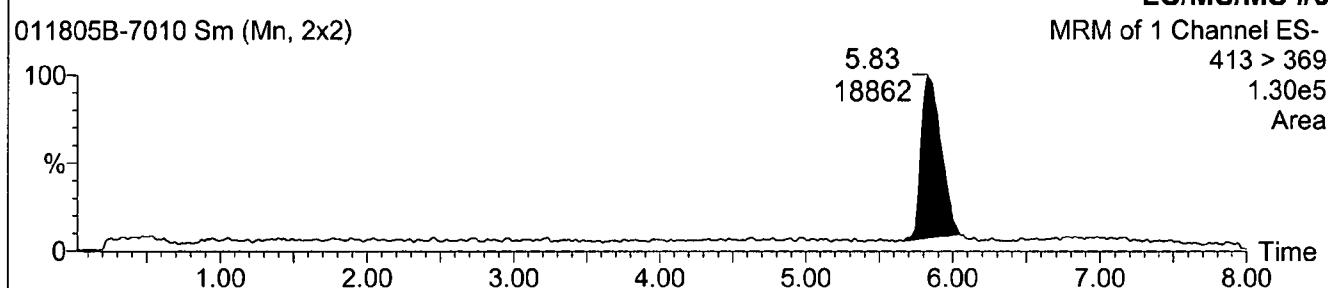
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.30e5

Area



Quantify Sample Report

Page 11

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7011

Text:

1: PFOA

**Reagent Spk B, 500 ng/L**

19-Jan-2005 01:55:47

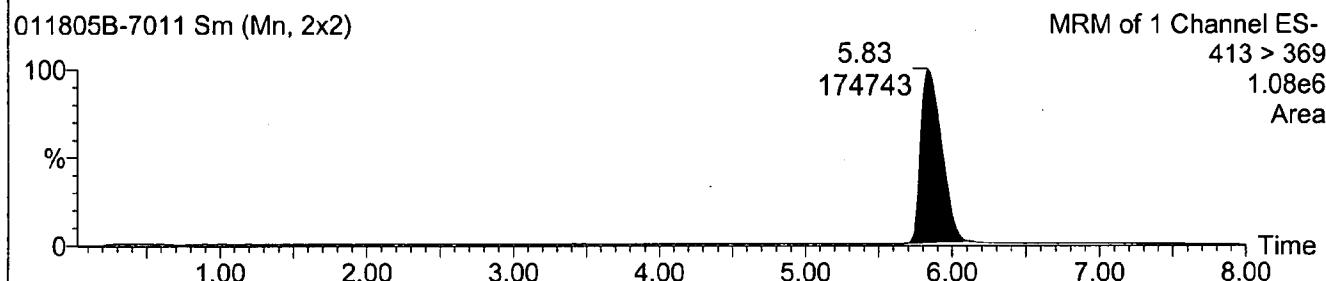
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.08e6

Area



Quantify Sample Report

Page 12

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

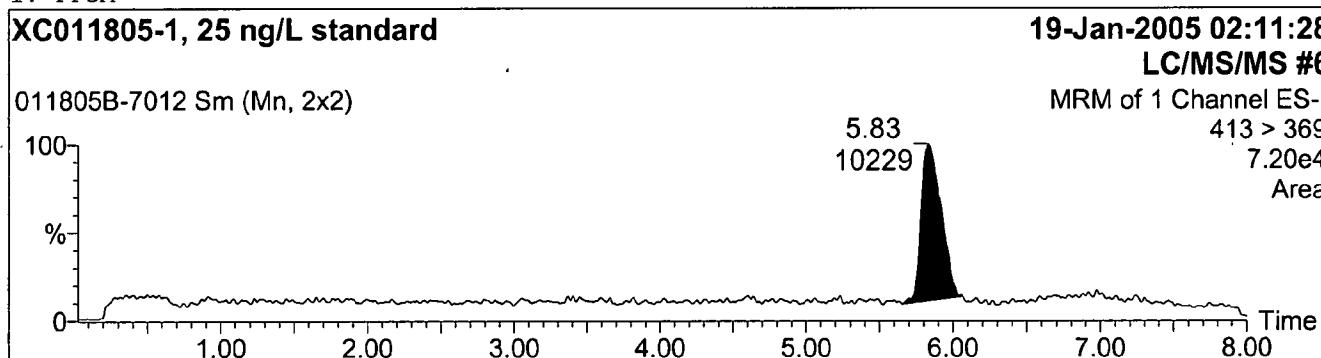
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7012

Text:

1: PFOA



Quantify Sample Report

Page 13

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

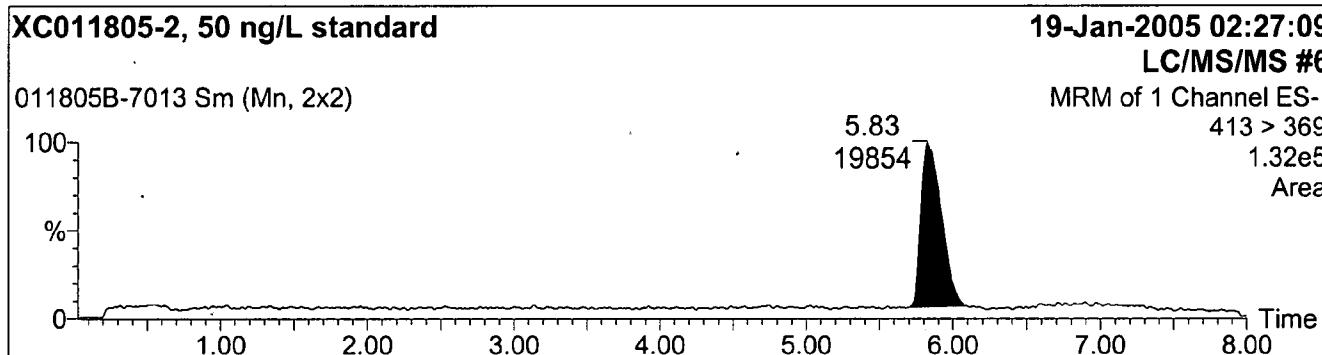
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7013

Text:

1: PFOA



Quantify Sample Report

Page 14

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7014

Text:

1: PFOA

L4258-1 Spk C, 500000 ng/L, DF=1000

19-Jan-2005 02:42:48

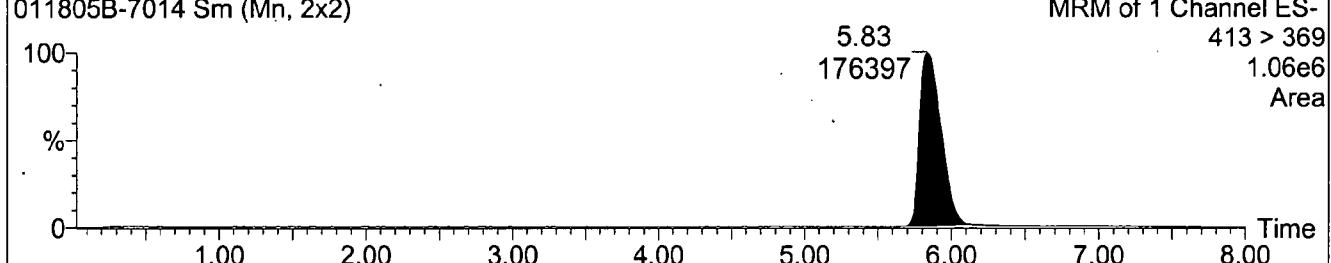
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.06e6

Area



**Quantify Sample Report**

Page 15

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7015

Text:

1: PFOA

L4258-2 Spk D, 500000 ng/L, DF=1000

19-Jan-2005 02:58:31

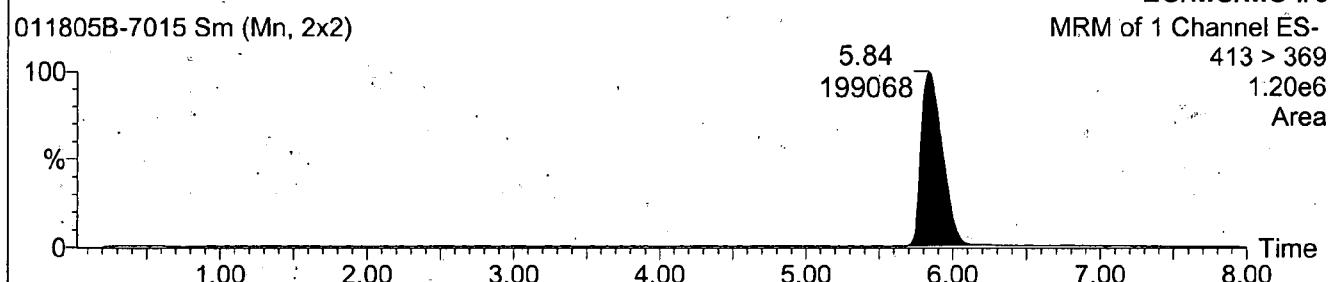
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.20e6

Area



Quantify Sample Report

Page 16

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

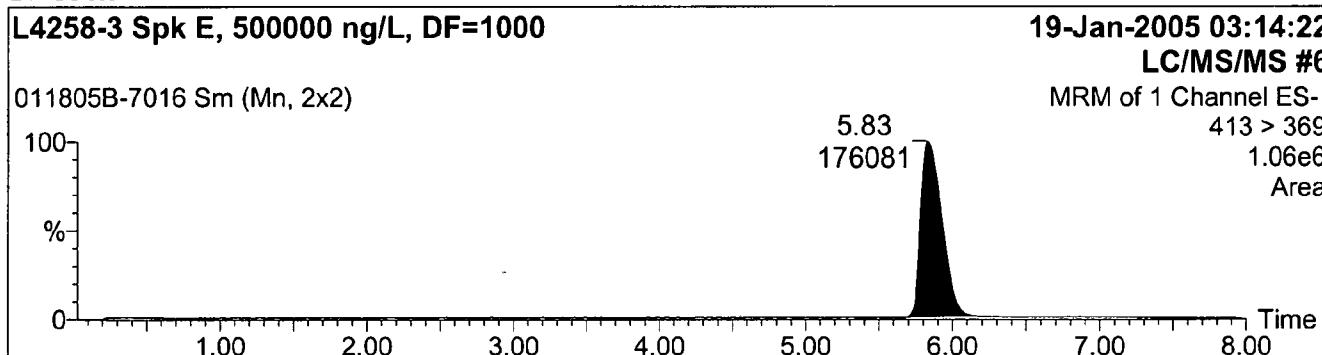
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7016

Text:

1: PFOA



Quantify Sample Report

Page 17

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7017

Text:

1: PFOA

L4258-4 Spk F, 500000 ng/L, DF=1000

19-Jan-2005 03:30:10

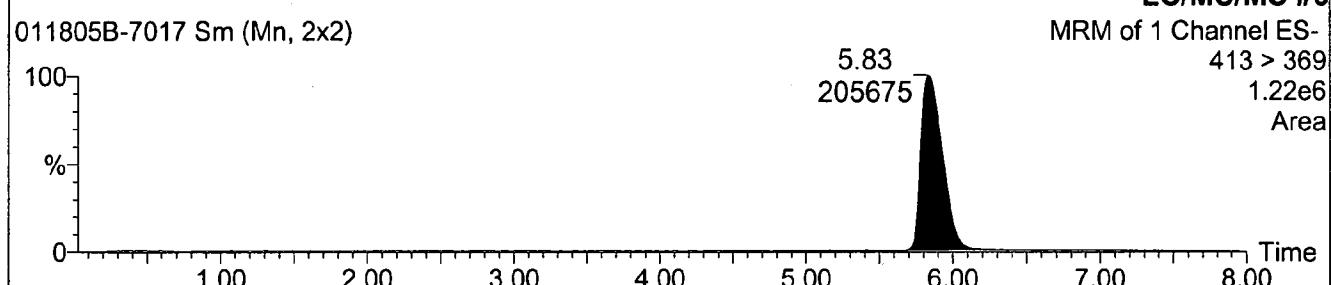
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.22e6

Area



Quantify Sample Report

Page 18

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

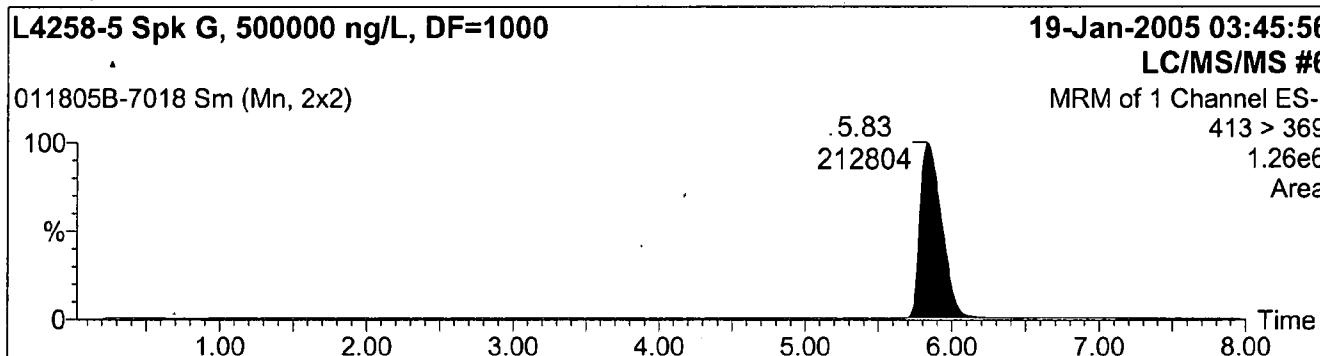
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7018

Text:

1: PFOA



Quantify Sample Report

Page 19

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

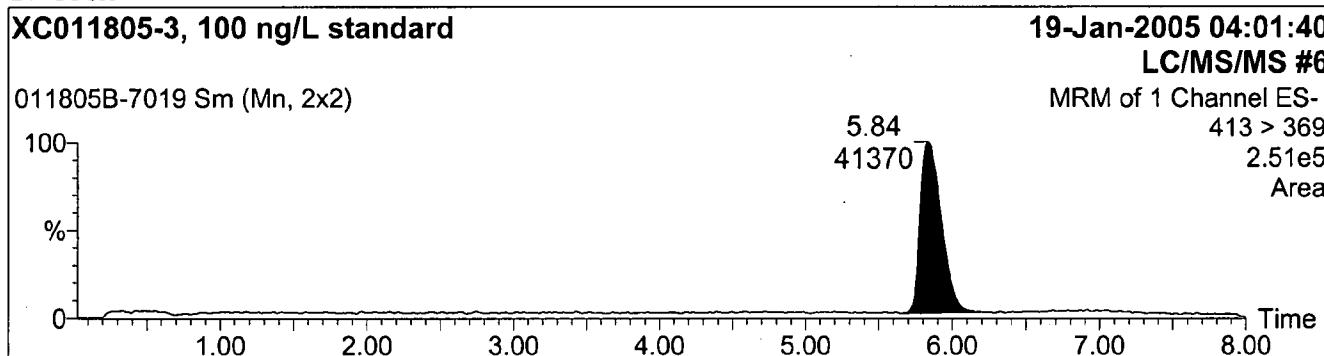
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7019

Text:

1: PFOA



Quantify Sample Report

Page 20

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

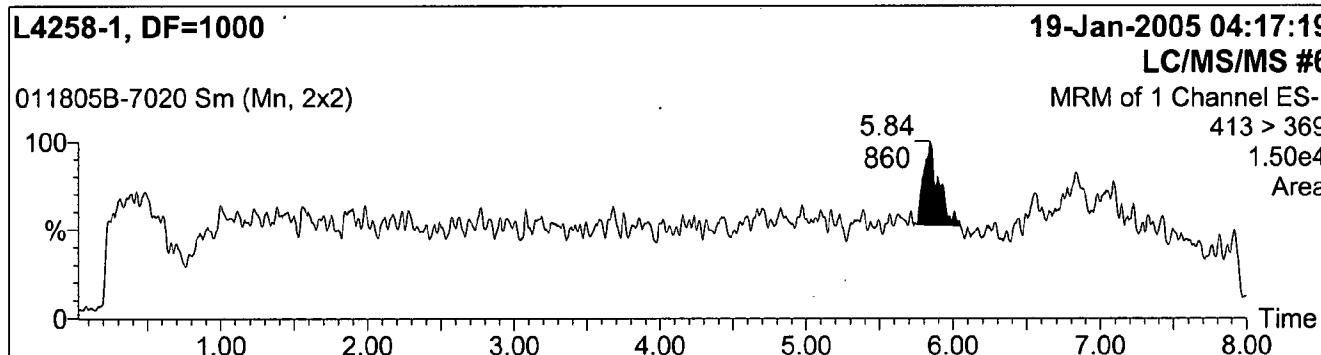
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7020

Text:

1: PFOA



Quantify Sample Report

Page 21

Study No.: L4258, Set No.: 011805B, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

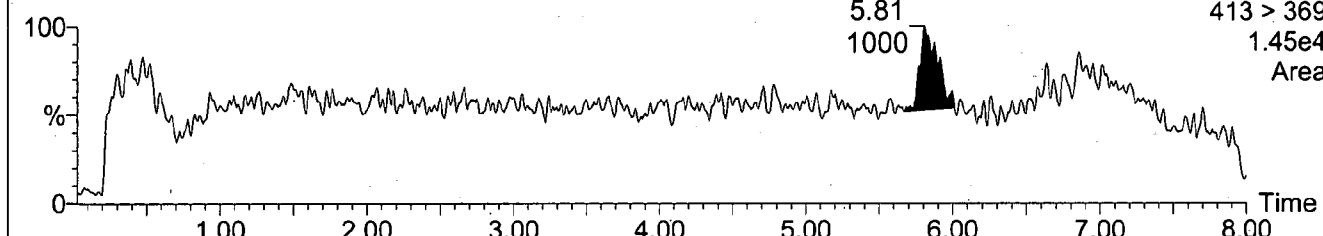
Name: 011805B-7021

Text:

1: PFOA

L4258-1 Rep, DF=1000

011805B-7021 Sm (Mn, 2x2)



Quantify Sample Report

Page 22

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7022

Text:

1: PFOA

L4258-2, DF=1000

19-Jan-2005 04:48:57

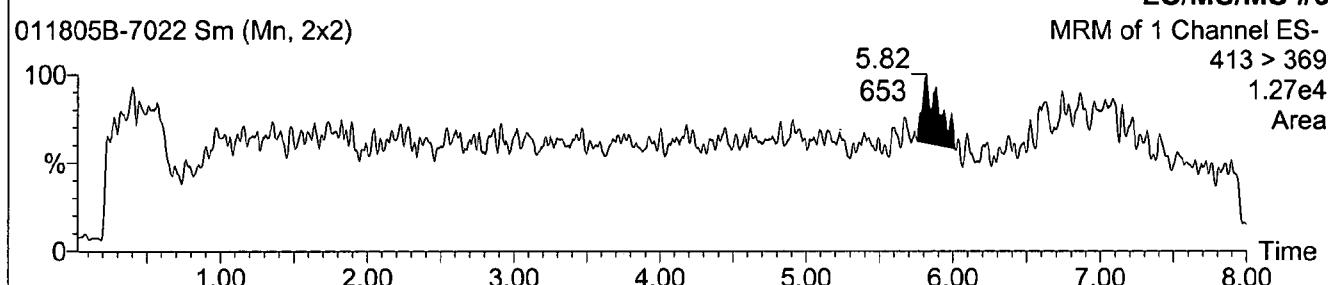
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.27e4

Area



Quantify Sample Report

Page 23

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7023

Text:

1: PFOA

L4258-2 Rep, DF=1000

19-Jan-2005 05:04:38

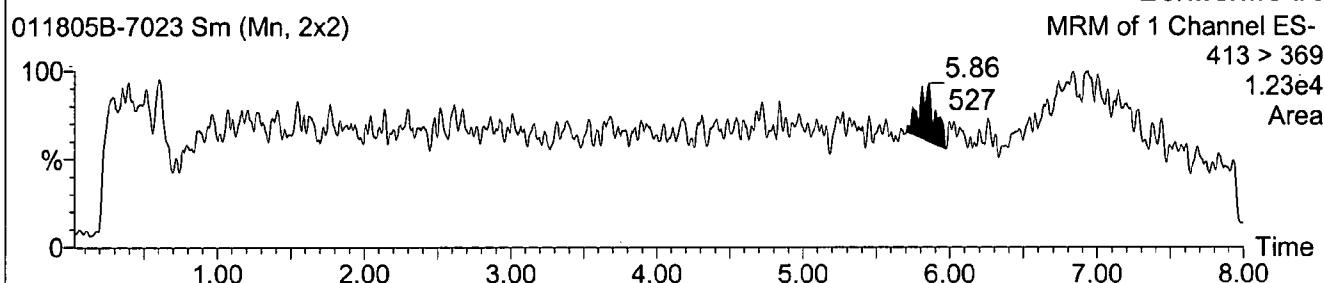
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.23e4

Area



Quantify Sample Report

Page 24

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7024

Text:

1: PFOA

L4258-3, DF=1000

19-Jan-2005 05:20:17

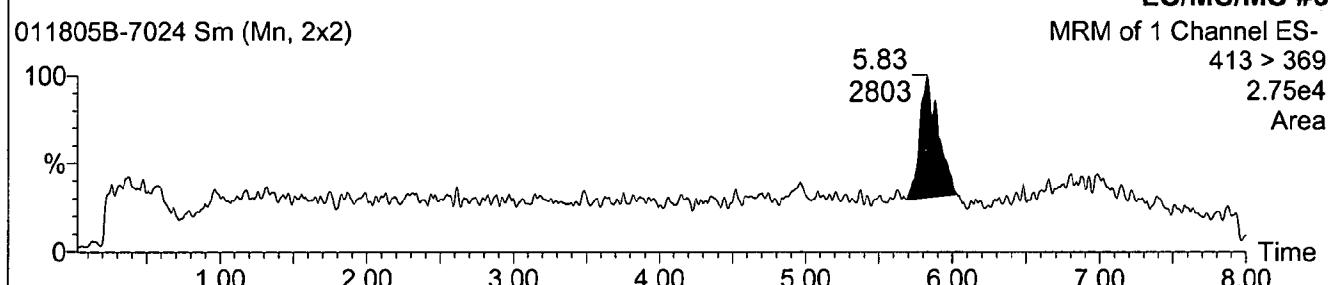
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

2.75e4

Area



Quantify Sample Report

Page 25

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7025

Text:

1: PFOA

L4258-3 Rep, DF=1000

19-Jan-2005 05:35:59

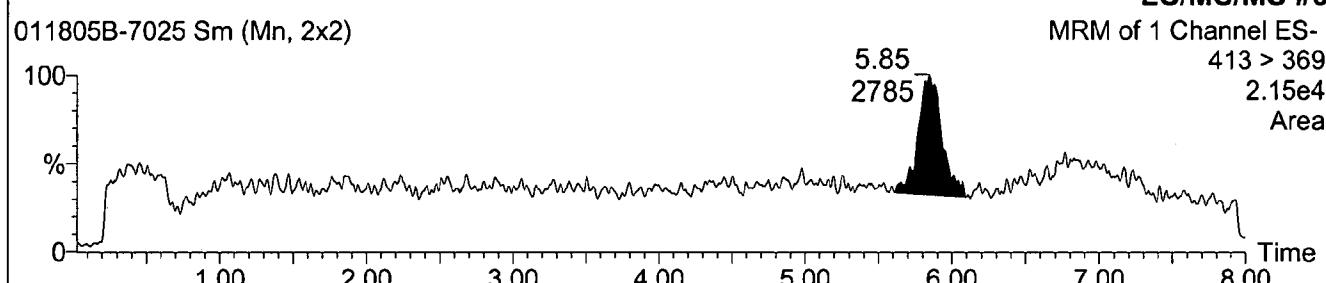
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

2.15e4

Area



Quantify Sample Report

Page 26

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

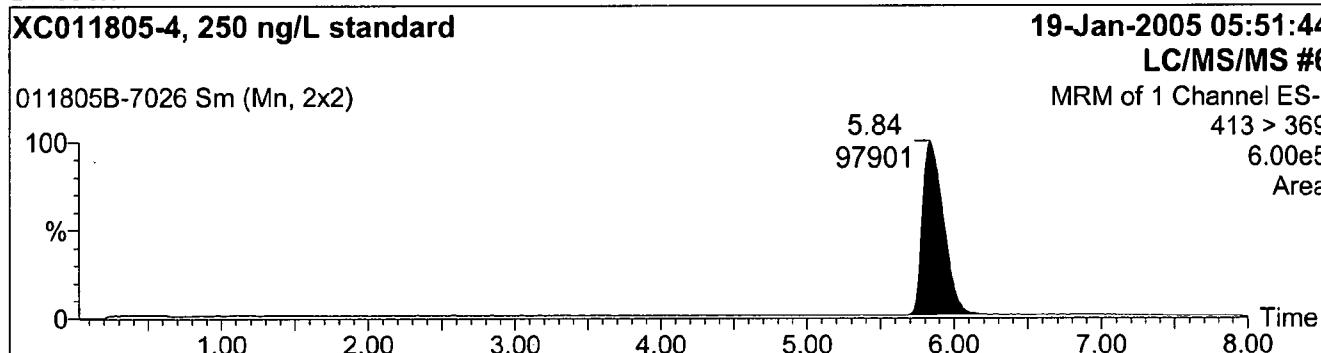
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7026

Text:

1: PFOA



Quantify Sample Report

Page 27

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

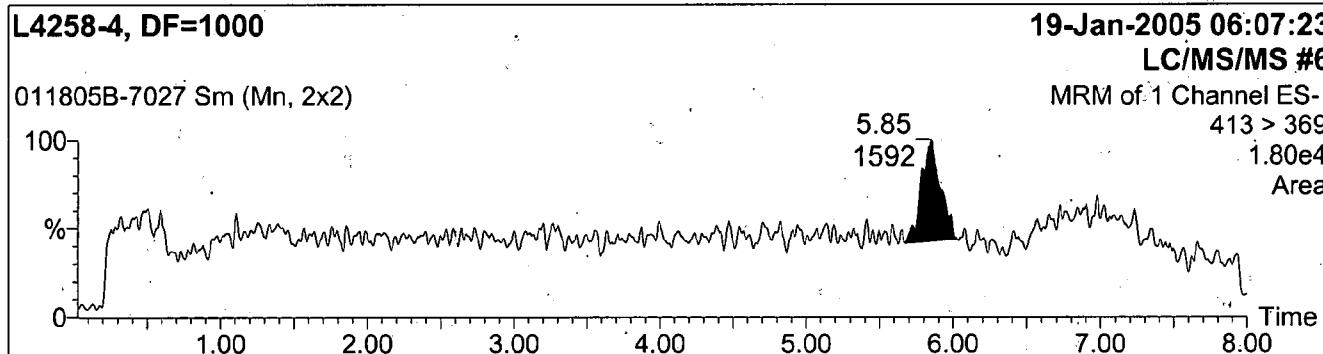
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7027

Text:

1: PFOA



Quantify Sample Report

Page 28

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7028

Text:

1: PFOA

L4258-4 Rep, DF=1000

19-Jan-2005 06:23:07

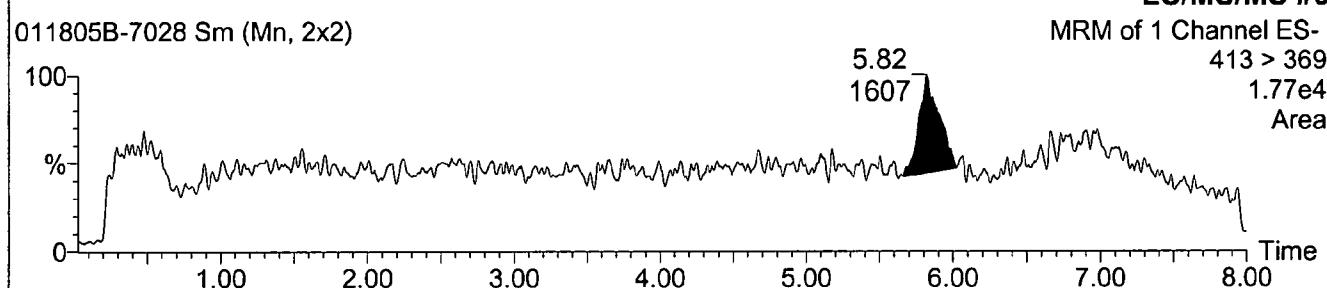
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.77e4

Area



Quantify Sample Report

Page 29

Study No.: L4258, Set No.: 011805B, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

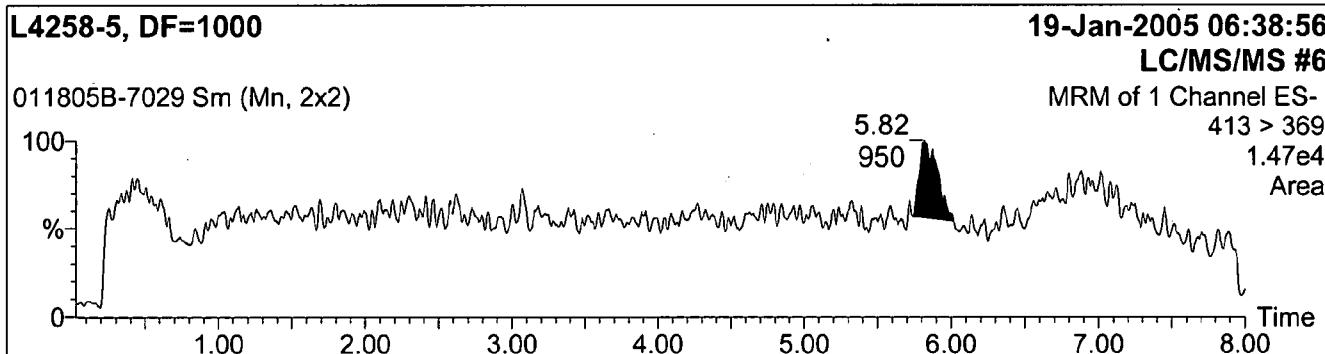
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7029

Text:

1: PFOA



Quantify Sample Report

Page 30

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Thu Jan 20 08:13:55 2005

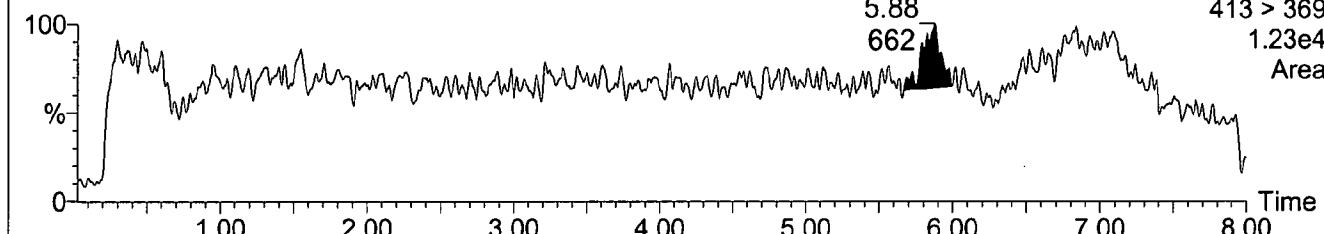
Name: 011805B-7030

Text:

1: PFOA

L4258-5 Rep, DF=1000

011805B-7030 Sm (Mn, 2x2)



Quantify Sample Report

Page 31

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Water

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

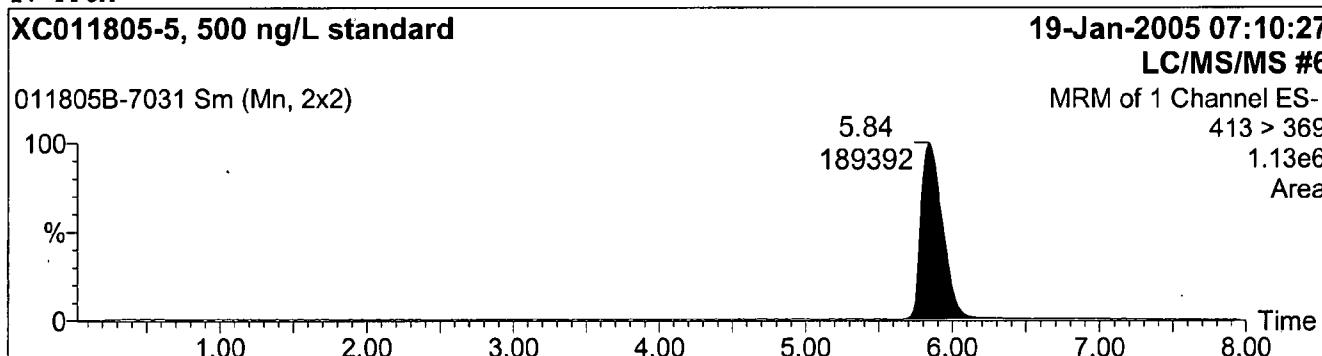
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7031

Text:

1: PFOA



Quantify Sample Report

Page 32

Study No.:L4258, Set No.:011805B, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805B Taconic Wat-

Last modified: Thu Jan 20 08:10:11 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

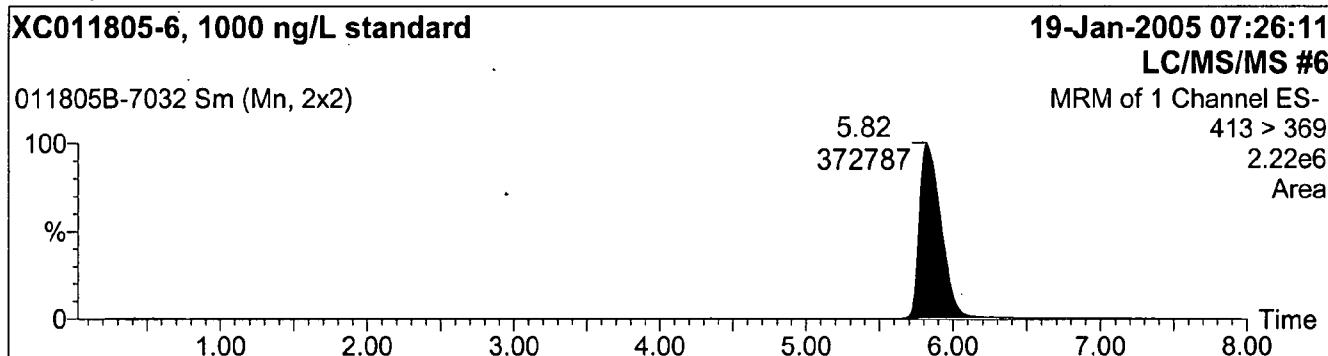
Job Code:

Printed: Thu Jan 20 08:13:55 2005

Name: 011805B-7032

Text:

1: PFOA



**RAW DATA REPORT**

Sponsor Study No:	NA	Limit of Quantitation:	50 ng/L	Set No:	011805BR
Oxygen Study No:	L4258	Injection Volume:	15 µL	Analyst:	Karen Risha
Analyte:	APFO	Matrix:	Water	Instrument Type:	LC/MS/MS Unit # 6
Ions Monitored:	413 > 369	Sample Volume Extracted:	0.4 mL	Extraction Date:	01/18/05
Site:	NA	Final Volume:	5.0 mL	Analyzed on:	01/20-21/05

Oxygen ID	Sponsor ID	Sample Code	Run No.	Std. Conc. (ng/L)	Dilution Factor	Peak Area	PFOA	APFO	Amount
							Found (ng/L)	Found (ng/L)	PFOA Added (ng/L)
XC011805-0	-	CS	011805BR-801	0	-	0	-	-	-
XC011805-1	-	CS	011805BR-802	25	-	10124	-	-	-
XC011805-2	-	CS	011805BR-803	50	-	19589	-	-	-
XC011805-3	-	CS	011805BR-804	100	-	38399	-	-	-
XC011805-4	-	CS	011805BR-805	250	-	90968	-	-	-
XC011805-5	-	CS	011805BR-806	500	-	182161	-	-	-
XC011805-6	-	CS	011805BR-807	1000	-	345348	-	-	-
L4258-1	04-13-01	S	011805BR-808	-	10	0	*	-	-
L4258-1 Rep	04-13-01	S	011805BR-809	-	10	0	*	-	-
L4258-1	04-13-01	S	011805BR-810	-	1	3126	ND	ND	-
L4258-1 Rep	04-13-01	S	011805BR-811	-	1	3372	ND	ND	-
L4258-2	04-13-02	S	011805BR-812	-	10	0	*	-	-
L4258-2 Rep	04-13-02	S	011805BR-813	-	10	0	*	-	-
XC011805-1	-	CS	011805BR-814	25	-	11602	-	-	-
XC011805-2	-	CS	011805BR-815	50	-	20848	-	-	-
L4258-2	04-13-02	S	011805BR-816	-	1	1031	ND	ND	-
L4258-2 Rep	04-13-02	S	011805BR-817	-	1	0	ND	ND	-
L4258-3	04-13-03	S	011805BR-818	-	10	142608	4200	4370	-
L4258-3 Rep	04-13-03	S	011805BR-819	-	10	145905	4300	4480	-
L4258-3	04-13-03	S	011805BR-820	-	1	1151178	*	-	-
L4258-3 Rep	04-13-03	S	011805BR-821	-	1	1128005	*	-	-
XC011805-3	-	CS	011805BR-822	100	-	40618	-	-	-
XC011805-4	-	CS	011805BR-823	250	-	96777	-	-	-
L4258-4	04-13-04	S	011805BR-824	-	10	79099	2280	2370	-
L4258-4 Rep	04-13-04	S	011805BR-825	-	10	76728	2210	2300	-
L4258-4	04-13-04	S	011805BR-826	-	1	632166	*	-	-
L4258-4 Rep	04-13-04	S	011805BR-827	-	1	594561	*	-	-
L4258-5	04-13-05	S	011805BR-828	-	10	23494	*	-	-
L4258-5 Rep	04-13-05	S	011805BR-829	-	10	22922	*	-	-
L4258-5	04-13-05	S	011805BR-830	-	1	189224	562	585	-
L4258-5 Rep	04-13-05	S	011805BR-831	-	1	174166	516	537	-
XC011805-5	-	CS	011805BR-832	500	-	156981	-	-	-
XC011805-6	-	CS	011805BR-833	1000	-	303476	-	-	-

$$\text{PFOA Found (ng/L)} = (\text{peak area} - \text{intercept}) / \text{slope} \times \text{DF}$$

$$\text{Recovery (\%)} = \frac{[\text{PFOA found (ng/L)} - \text{PFOA found in control (ng/L)}]}{\text{amount PFOA added (ng/L)}} \times 100$$

Standard Curve : Linear (1/x weighted)

Intercept = 3785.98

Slope = 330.249

Coef. Of Det. = 0.989545

$$\text{APFO Found (ng/L)} = \text{PFOA found (ng/L)} \times (\text{MW APFO (431)} / \text{MW PFOA (414)})$$

CS = Calibration standard

LF = Lab fortified sample

CK = Check Standard

C = Control sample

FF = Field fortified sample

ND = Not detected = Response between 0 and 50 ng/L

S = Sample

LCS = Laboratory Control Spike

\*Sample was analyzed at several dilution levels in this set. The appropriate result is reported.

Spreadsheet prepared by:

*[Signature]*, 01/24/05

## Masslynx - Sample List

Sample List: C:\MASSLYNX\Fluorochemicals.PRO\SampleDB\011805BR Taconic Water.SPL  
Printed: Thu Jan 20 14:37:06 2005

01/20/05

Exygen STUDY NO. L4258

Page 1

Page Position: (1, 1)

Vial	File Name	LIMS ID	Client ID	Sample Description	Matrix	Sample Type	Conc (ng/L)	Conc B	Conc C	Test ID	DF	MS Method
1	81	011805BR-801	---	XC011805-0, 0 ng/L standard	---	Standard	0	---	---	0	1	PFOA
2	82	011805BR-802	---	XC011805-1, 25 ng/L standard	---	Standard	25	---	---	0	1	PFOA
3	83	011805BR-803	---	XC011805-2, 50 ng/L standard	---	Standard	50	---	---	0	1	PFOA
4	84	011805BR-804	---	XC011805-3, 100 ng/L standard	---	Standard	100	---	---	0	1	PFOA
5	85	011805BR-805	---	XC011805-4, 250 ng/L standard	---	Standard	250	---	---	0	1	PFOA
6	86	011805BR-806	---	XC011805-5, 500 ng/L standard	---	Standard	500	---	---	0	1	PFOA
7	87	011805BR-807	---	XC011805-6, 1000 ng/L standard	---	Standard	1000	---	---	0	1	PFOA
8	31	011805BR-808	---	L4258-1, DF=10	---	Analyte	---	---	---	0	10	PFOA
9	32	011805BR-809	---	L4258-1 Rep, DF=10	---	Analyte	---	---	---	0	10	PFOA
10	33	011805BR-810	---	L4258-1	---	Analyte	---	---	---	0	1	PFOA
11	34	011805BR-811	---	L4258-1 Rep	---	Analyte	---	---	---	0	1	PFOA
12	35	011805BR-812	---	L4258-2, DF=10	---	Analyte	---	---	---	0	10	PFOA
13	36	011805BR-813	---	L4258-2 Rep, DF=10	---	Analyte	---	---	---	0	10	PFOA
14	82	011805BR-814	---	XC011805-1, 25 ng/L standard	---	Standard	25	---	---	0	1	PFOA
15	83	011805BR-815	---	XC011805-2, 50 ng/L standard	---	Standard	50	---	---	0	1	PFOA
16	37	011805BR-816	---	L4258-2	---	Analyte	---	---	---	0	1	PFOA
17	38	011805BR-817	---	L4258-2 Rep	---	Analyte	---	---	---	0	1	PFOA
18	39	011805BR-818	---	L4258-3, DF=10	---	Analyte	---	---	---	0	10	PFOA
19	40	011805BR-819	---	L4258-3 Rep, DF=10	---	Analyte	---	---	---	0	10	PFOA
20	41	011805BR-820	---	L4258-3	---	Analyte	---	---	---	0	1	PFOA
21	42	011805BR-821	---	L4258-3 Rep	---	Analyte	---	---	---	0	1	PFOA
22	84	011805BR-822	---	XC011805-3, 100 ng/L standard	---	Standard	100	---	---	0	1	PFOA
23	85	011805BR-823	---	XC011805-4, 250 ng/L standard	---	Standard	250	---	---	0	1	PFOA
24	43	011805BR-824	---	L4258-4, DF=10	---	Analyte	---	---	---	0	10	PFOA
25	44	011805BR-825	---	L4258-4 Rep, DF=10	---	Analyte	---	---	---	0	10	PFOA
26	45	011805BR-826	---	L4258-4	---	Analyte	---	---	---	0	1	PFOA
27	46	011805BR-827	---	L4258-4 Rep	---	Analyte	---	---	---	0	1	PFOA
28	47	011805BR-828	---	L4258-5, DF=10	---	Analyte	---	---	---	0	10	PFOA
29	48	011805BR-829	---	L4258-5 Rep, DF=10	---	Analyte	---	---	---	0	10	PFOA
30	49	011805BR-830	---	L4258-5	---	Analyte	---	---	---	0	1	PFOA
31	50	011805BR-831	---	L4258-5 Rep	---	Analyte	---	---	---	0	1	PFOA
32	86	011805BR-832	---	XC011805-5, 500 ng/L standard	---	Standard	500	---	---	0	1	PFOA
33	87	011805BR-833	---	XC011805-6, 1000 ng/L standard	---	Standard	1000	---	---	0	1	PFOA

TAC EPA 00612

000603

Masslynx - Sample List

Sample List: C:\MASSLYNX\Fluorochemicals.PRO\SampleDB\011805BR Taconic Water.SPL  
Printed: Thu Jan 20 14:37:06 2005

*bf 01/20/05*

Oxygen STUDY NO. L4250

Page 2

Page Position: (2, 1)

HPLC Method MS Tune File Inj. Volume

1	water	Fluorochems	15
2	water	Fluorochems	15
3	water	Fluorochems	15
4	water	Fluorochems	15
5	water	Fluorochems	15
6	water	Fluorochems	15
7	water	Fluorochems	15
8	water	Fluorochems	15
9	water	Fluorochems	15
10	water	Fluorochems	15
11	water	Fluorochems	15
12	water	Fluorochems	15
13	water	Fluorochems	15
14	water	Fluorochems	15
15	water	Fluorochems	15
16	water	Fluorochems	15
17	water	Fluorochems	15
18	water	Fluorochems	15
19	water	Fluorochems	15
20	water	Fluorochems	15
21	water	Fluorochems	15
22	water	Fluorochems	15
23	water	Fluorochems	15
24	water	Fluorochems	15
25	water	Fluorochems	15
26	water	Fluorochems	15
27	water	Fluorochems	15
28	water	Fluorochems	15
29	water	Fluorochems	15
30	water	Fluorochems	15
31	water	Fluorochems	15
32	water	Fluorochems	15
33	water	Fluorochems	15

TAC EPA 00613

000604

## LC/MS/MS SYSTEM AND OPERATING CONDITIONS

Sponsor Protocol No: NA

Exygen Study No: L4258

Instrument: Micromass Quattro Ultima (LC/MS/MS Unit #6)

Computer: COMPAQ Professional Workstation AP200

Software: Microsoft Windows NT: Version 4 Build 1381: Service Pack 5  
Micromass Limited: MassLynx 3.4 Build 004

HPLC Equipment: Hewlett Packard (HP) Series 1100

HP Bin Pump                    HP Vacuum Degasser  
HP Autosampler                HP Column Oven

HPLC Column: Genesis C-8, 5 cm x 2.1 mm i.d. x 4  $\mu$  (Exygen ID: MA0016984)  
(JONESCHROMATOGRAPHY: Part No. FK5962E)

Mobile Phase (A) : 2 mM Ammonium Acetate in Water

Mobile Phase (B) : Methanol

Analyst: Karen Risha  
Exygen Research  
3058 Research Drive, State College, PA 16801  
Phone: (814) 272-1039 FAX: (814) 231-1580

20/01/05

**NOTE: The next 3 pages are computer generated printouts from  
the masslynx software program. The pages contain the  
instrument settings used for the analysis of this data set.**

All Handwritten Peak ID's by:

20/01/05

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Scanning Method Report

Page 1

Method: C:\MASSLYNX\FLUOROCHEMICALS.PRO\ACQUDB\PFOA  
Last Modified: Wed Mar 26 15:31:10 2003

Printed: Thu Jan 20 14:40:23 2005

1/20/2005

---

Solvent Delay ( mins ) : 0.00

Analog Channel 4 : Unused

Function : 1 MRM of 1 Mass Pair ( ESP- )

Inter Channel Delay ( Secs ) : 0.03

Span ( Daltons ) : 0.00

Start Time ( Mins ) : 0.00

End Time ( Mins ) : 8.00

Repeats : 1

Channel	Parent	Daughter	Dwell (Secs)	Coll Energy (eV)	Cone ( V )
1	413.00	369.00	0.20	10	10

---

**Method Report**

Page 1

**Method File:**  
**Last Modified:**c:\masslynx\fluorochemicals.pro\acqdb\water  
Thursday, January 20, 2005 14:40:27**Printed:**

Thursday, January 20, 2005 14:40:31

1/20/05

---

**HP1100 LC Pump Initial Conditions****Solvents**

A%	60.0
B%	40.0
C%	0.0
D%	0.0

Flow (ml/min)	0.300
Stop Time (mins)	14.0
Min Pressure (bar)	0
Max Pressure (bar)	400
Oven Temperature Left(°C)	35.0
Oven Temperature Right(°C)	35.0

**HP1100 LC Pump Gradient Timetable**

The gradient Timetable contains 9 entries which are :

Time	A%	B%	C%	D%	Flow	Pressure
0.00	60.0	40.0	0.0	0.0	0.300	400
0.40	60.0	40.0	0.0	0.0	0.300	400
1.00	10.0	90.0	0.0	0.0	0.300	400
7.00	10.0	90.0	0.0	0.0	0.300	400
7.50	0.0	100.0	0.0	0.0	0.300	400
9.00	0.0	100.0	0.0	0.0	0.400	400
9.50	60.0	40.0	0.0	0.0	0.400	400
13.50	60.0	40.0	0.0	0.0	0.400	400
14.00	60.0	40.0	0.0	0.0	0.300	400

**HP1100 LC Pump External Event Timetable**

The Timetable contains 6 entries which are :

Time	Column Switch	Contact1	Contact2	Contact3	Contact4
Initial	Off	Off	Off	Off	Off
0.00	Off	On	Off	Off	Off
0.05	Off	Off	Off	Off	Off
0.10	Off	Off	On	Off	Off
7.95	Off	Off	Off	On	Off
8.00	Off	Off	Off	Off	Off

**HP1100 Autosampler Initial Conditions**

Draw Speed	200.0
Eject Speed ( $\mu$ l/min)	200
Draw Position (mm)	0.50
Stop Time (mins)	14.00
Injection Volume( $\mu$ l)	15.0
Vial Number	87

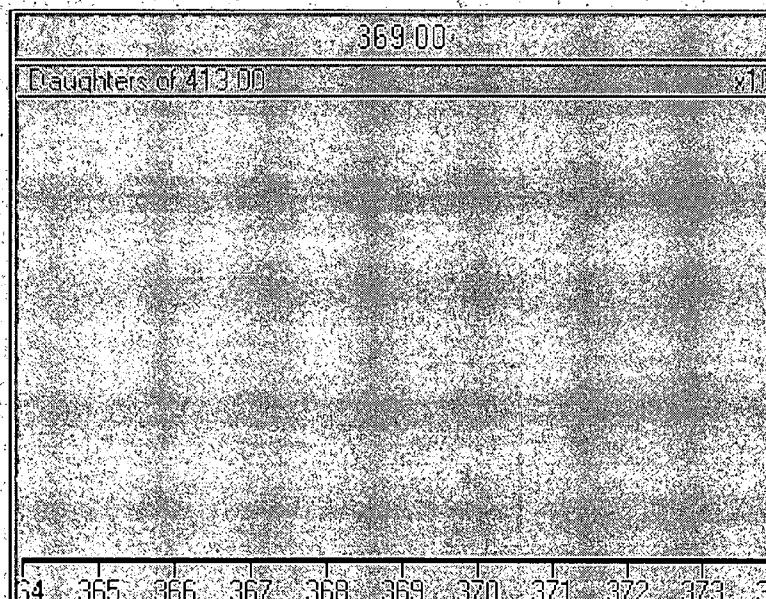
## Tuning Method Report

Page 1

Method: C:\MASSLYNX\FLUOROCHEMICALS.PRO\ACQUDB\FLUOROCHEMS

Printed: Thu Jan 20 14:40:49 2005

BF01/20/05



Dau 413.00

SOURCE (ESP-)	Set	Rdbk	Analyser	Set	Rdbk
Capillary	3.00	-1.13	LM Res 1	13.5	
Cone	10	-10	HM Res 1	13.5	
Hexapole 1	0.0		IEnergy 1	1.0	
Aperture 1	0.0		Entrance	-2	27
Hexapole 2	0.0		Collision	30	26
Source Block Temp.	100	100	Exit	2	31
Desolvation Temp.	300	291	LM Res 2	13.5	
			HM Res 2	13.5	
			IEnergy 2	2.0	
			Multiplier	650	-648
<b>Pressures</b>		<b>Rdbk</b>	<b>Gas Flows</b>		
Analyser Vacuum	OFF		Cone Gas	185.3	
Gas Cell	3.0e-3		Desolvation	767.4	

Quantify Calibration Report

Page 1

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Calibration: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\CurveDB\011805BR Taconic Water  
Last modified: Mon Jan 24 06:29:15 2005  
Printed: Mon Jan 24 06:30:15 2005

01/24/05

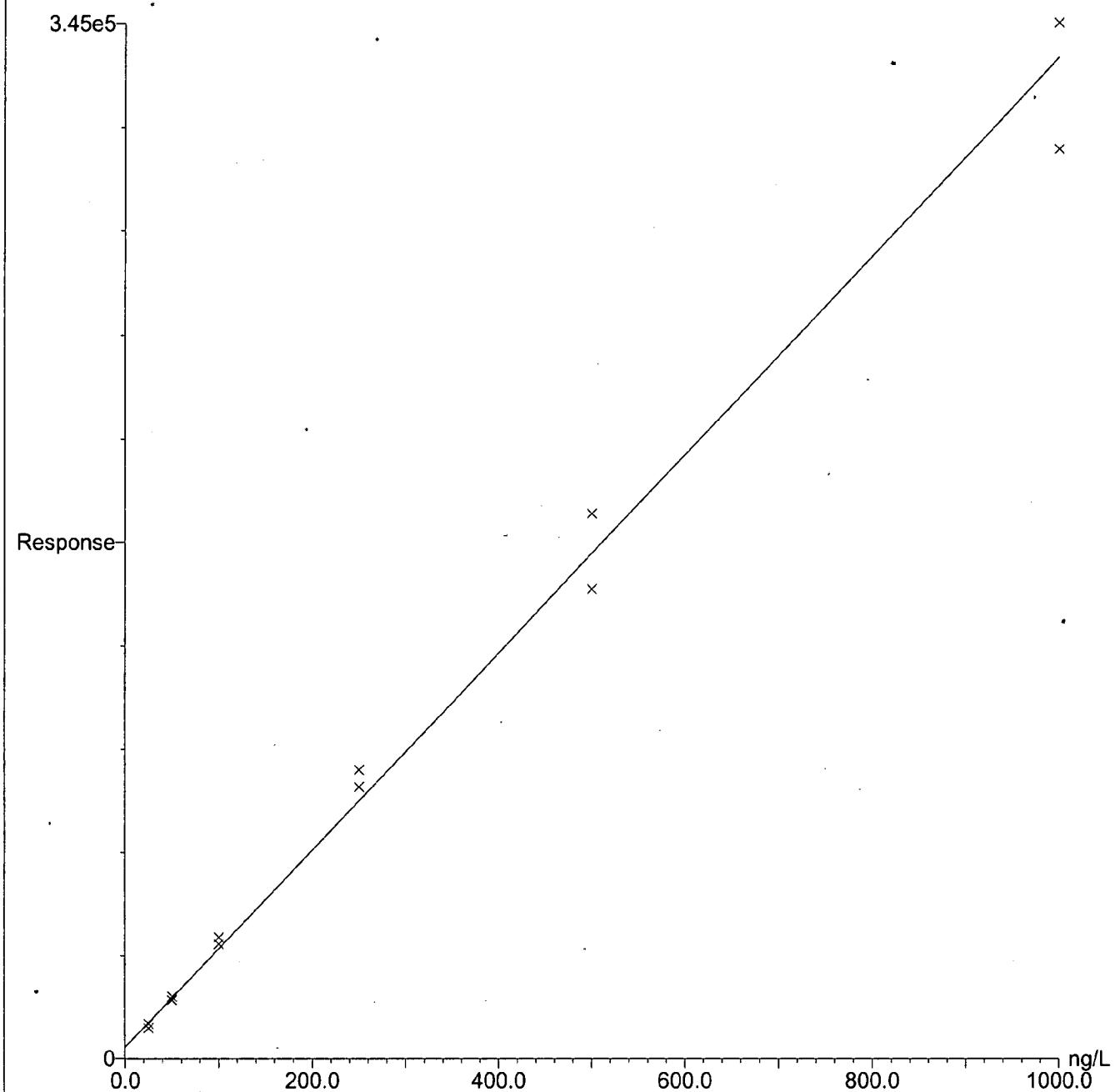
Compound 1 name: PFOA

Coefficient of Determination: 0.989545

Calibration curve:  $330.249 * x + 3785.98$

Response type: External Std, Area

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Quantify Sample Report

Page 1

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal-

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Initials KR

Date 012405

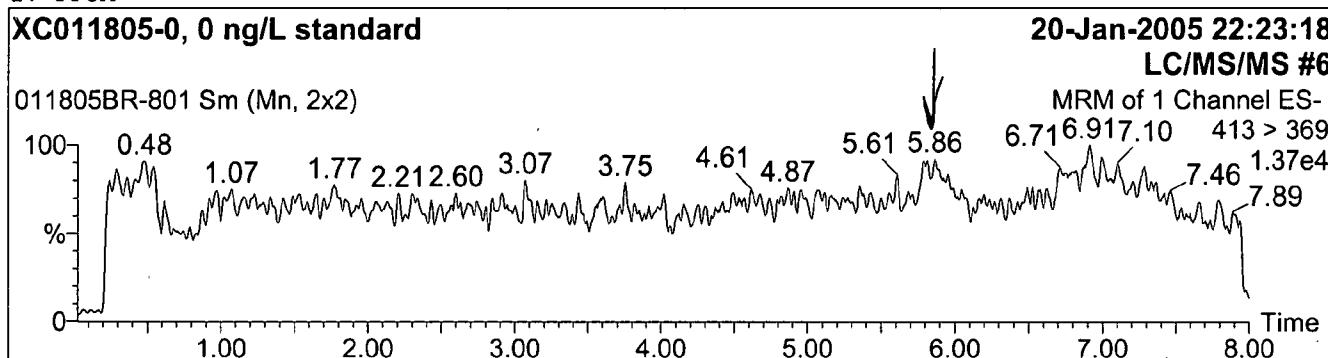
Run# 011805BR-801 To 011805BR-B33

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-801

Text:

1: PFOA



Quantify Sample Report

Page 2

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal-

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-802

Text:

1: PFOA

XC011805-1, 25 ng/L standard

20-Jan-2005 22:38:57

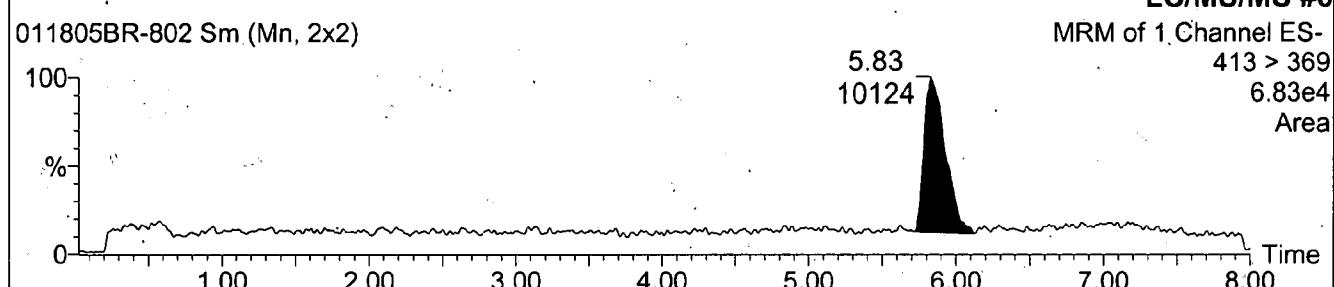
LC/MS/MS #6

MRM of 1.Channel ES-

413 > 369

6.83e4

Area



Quantify Sample Report

Page 3

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

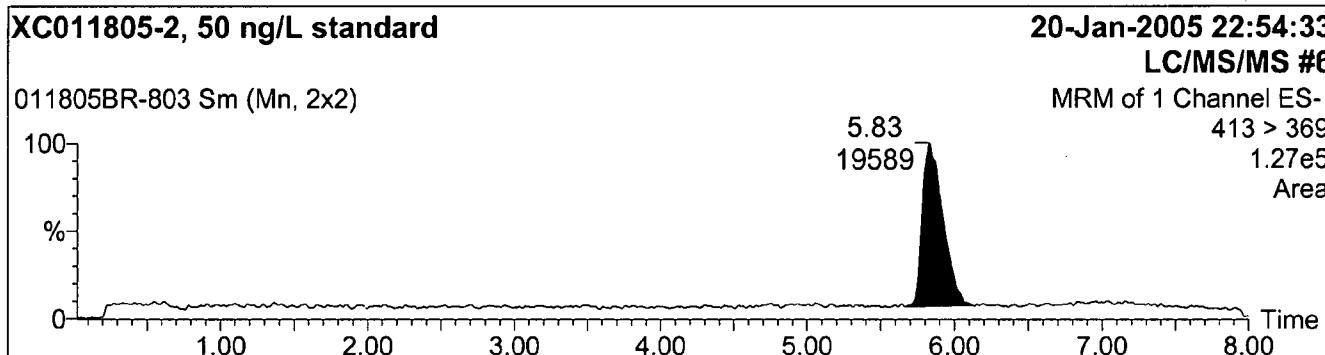
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-803

Text:

1: PFOA



Quantify Sample Report

Page 4

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

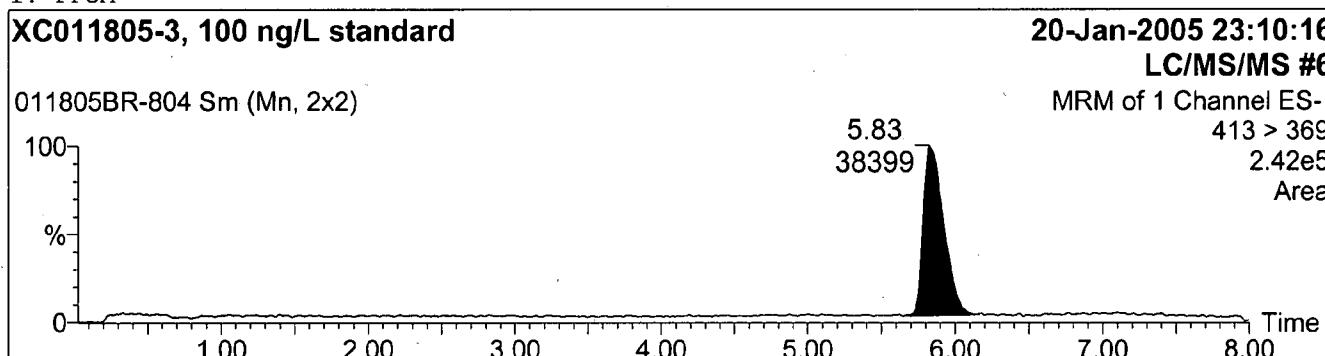
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-804

Text:

1: PFOA



Quantify Sample Report

Page 5

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-805

Text:

1: PFOA

XC011805-4, 250 ng/L standard

20-Jan-2005 23:25:56

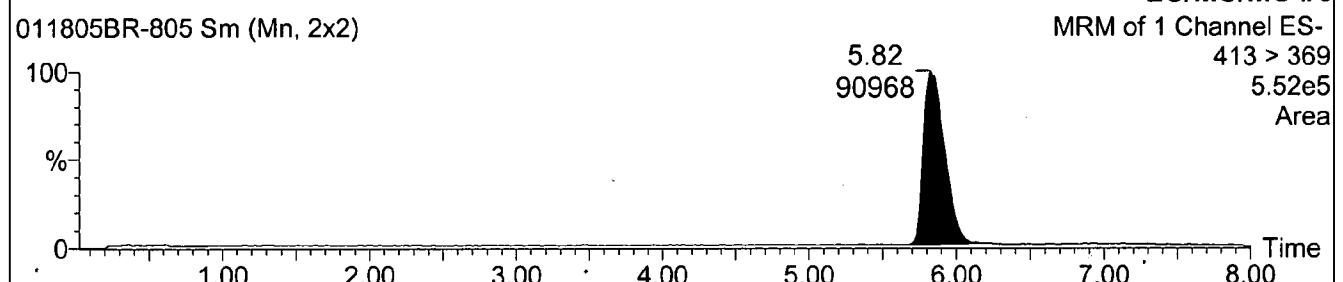
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

5.52e5

Area



Quantify Sample Report

Page 6

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

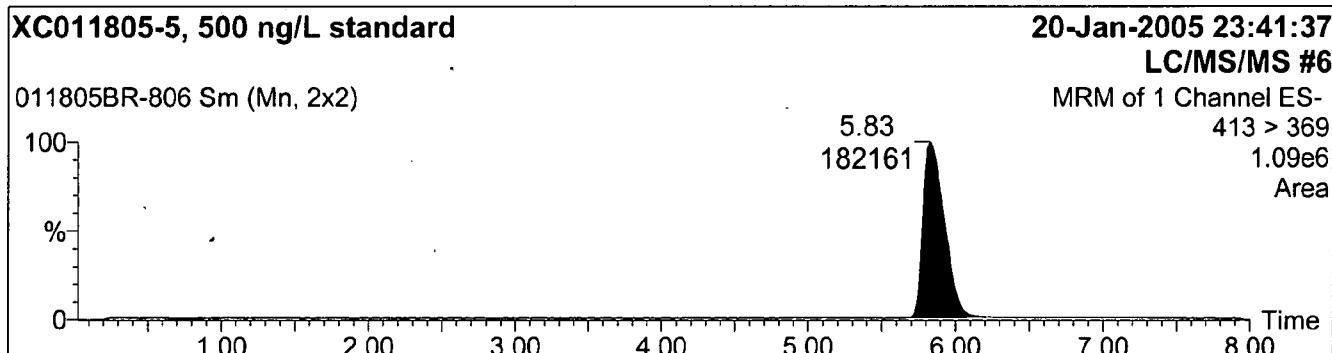
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-806

Text:

1: PFOA



Quantify Sample Report

Page 7

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

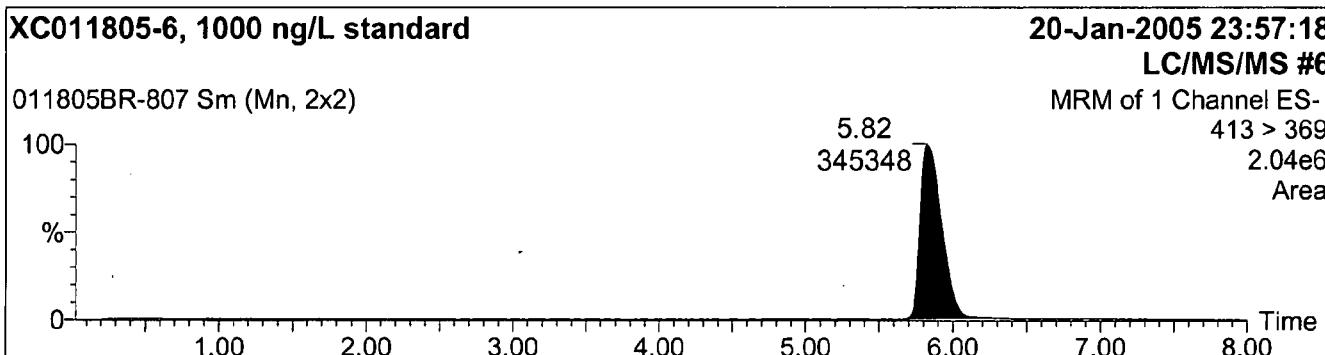
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-807

Text:

1: PFOA



Quantify Sample Report

Page 8

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

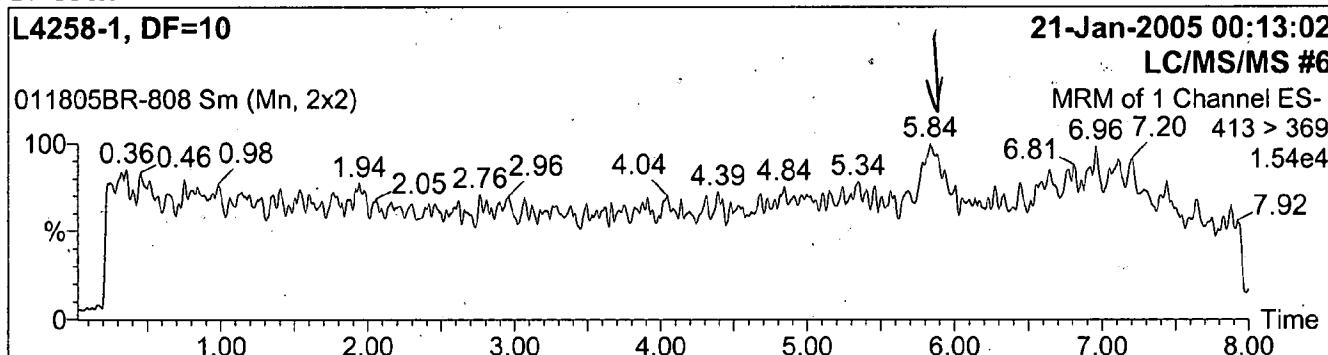
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-808

Text:

1: PFOA



Quantify Sample Report

Page 9

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

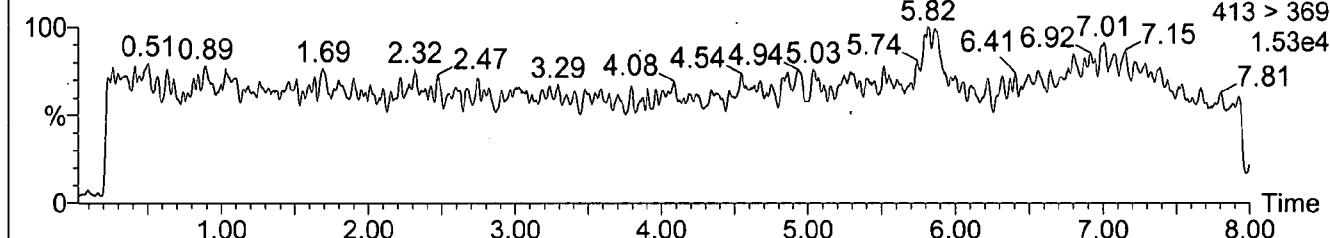
Name: 011805BR-809

Text:

1: PFOA

L4258-1 Rep, DF=10

011805BR-809 Sm (Mn, 2x2)



Quantify Sample Report

Page 10

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-810

Text:

1: PFOA

L4258-1

21-Jan-2005 00:44:25

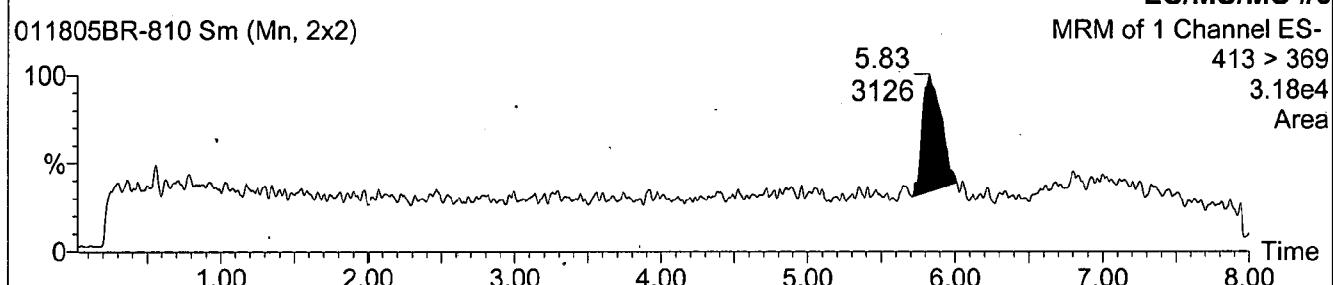
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

3.18e4

Area



Quantify Sample Report

Page 11

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

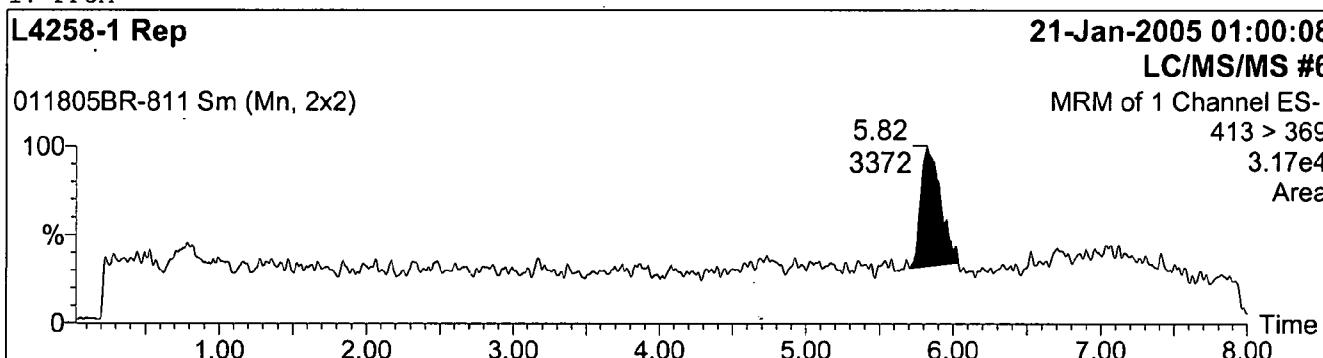
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-811

Text:

1: PFOA



Quantify Sample Report

Page 12

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

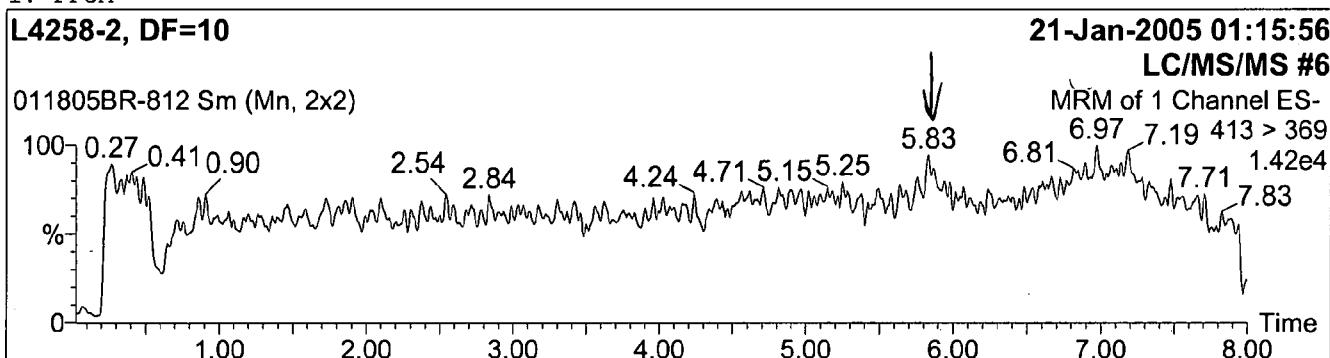
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-812

Text:

1: PFOA



Quantify Sample Report

Page 13

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal-

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-813

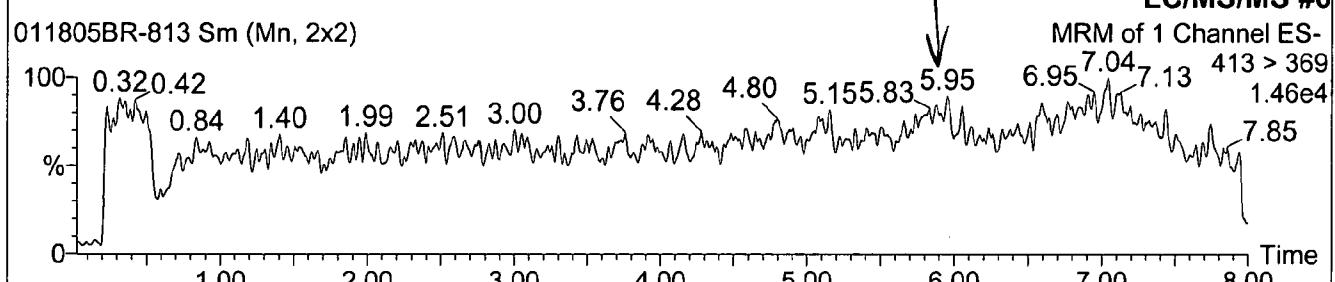
Text:

1: PFOA

L4258-2 Rep, DF=10

21-Jan-2005 01:31:39

LC/MS/MS #6



Quantify Sample Report

Page 14

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-814

Text:

1: PFOA

**XC011805-1, 25 ng/L standard**

**21-Jan-2005 01:47:25**

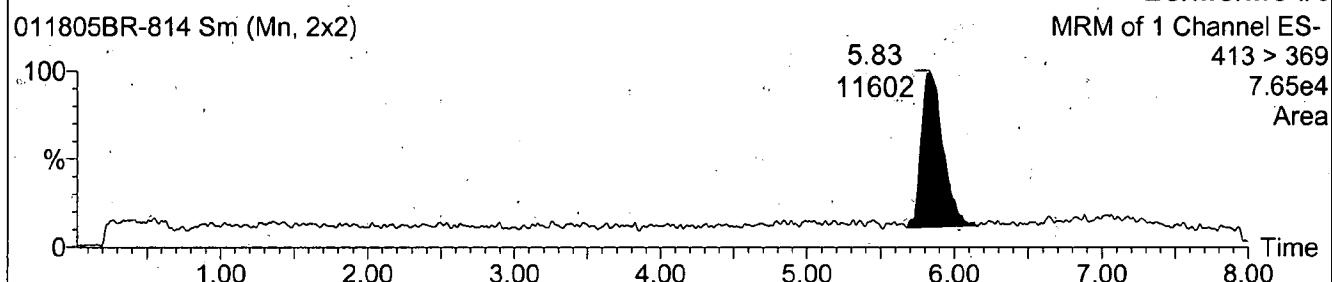
**LC/MS/MS #6**

MRM of 1 Channel ES-

413 > 369

7.65e4

Area



Quantify Sample Report

Page 15

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

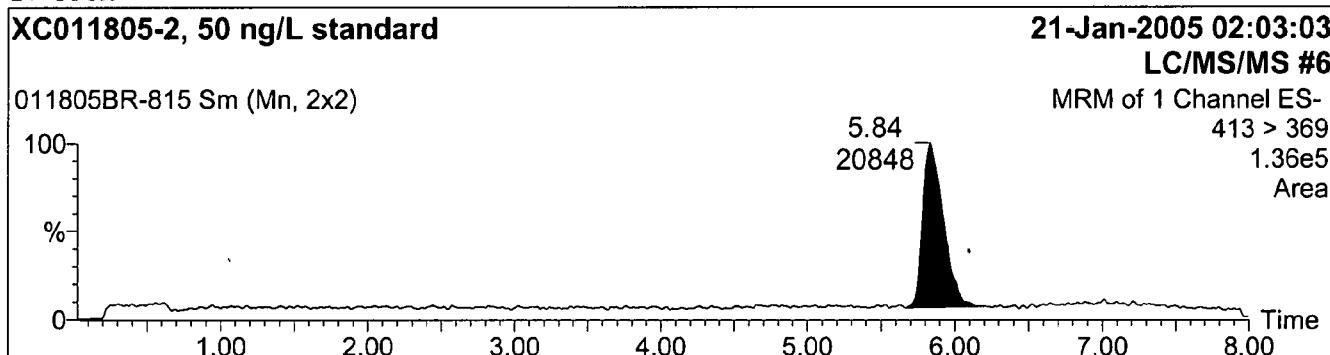
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-815

Text:

1: PFOA



Quantify Sample Report

Page 16

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

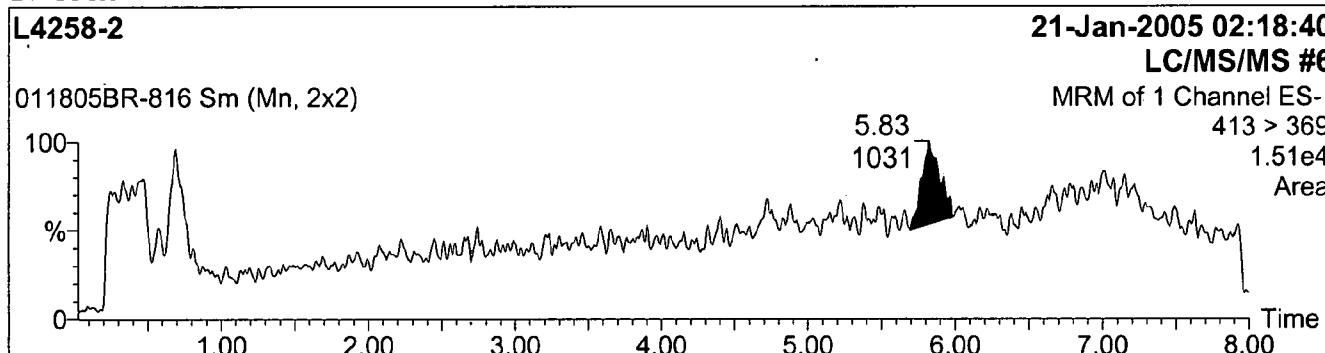
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-816

Text:

1: PFOA



Quantify Sample Report

Page 17

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-817

Text:

1: PFOA

L4258-2 Rep

011805BR-817 Sm (Mn, 2x2)

0.69

100

%

0

1.00

2.00

3.00

4.00

5.00

6.00

7.00

8.00

Time

0.82

2.03

2.47

2.58

3.16

3.85

3.98

5.00

5.09

5.80

5.90

6.56

6.86

7.06

7.15

7.15

7.15

7.82

21-Jan-2005 02:34:27

LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

Quantify Sample Report

Page 18

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal-

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

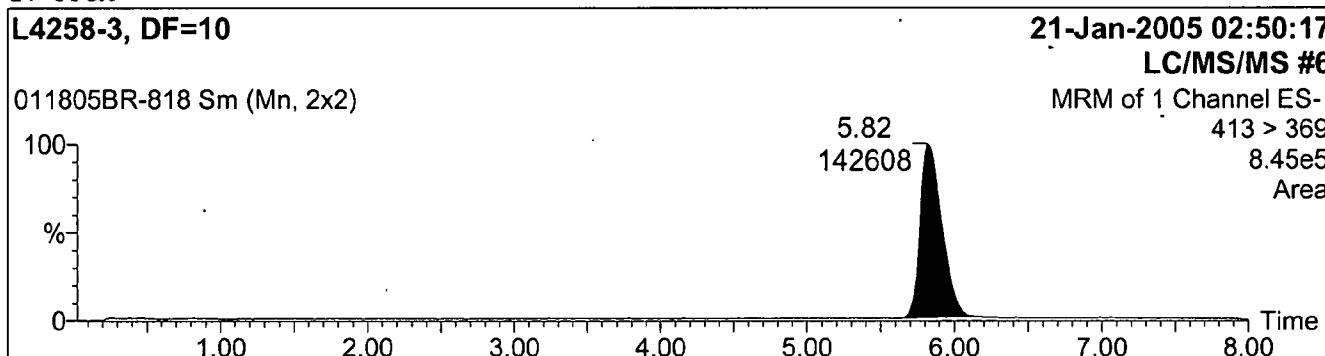
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-818

Text:

1: PFOA



Quantify Sample Report

Page 19

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal-

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-819

Text:

1: PFOA

L4258-3 Rep, DF=10

21-Jan-2005 03:06:08

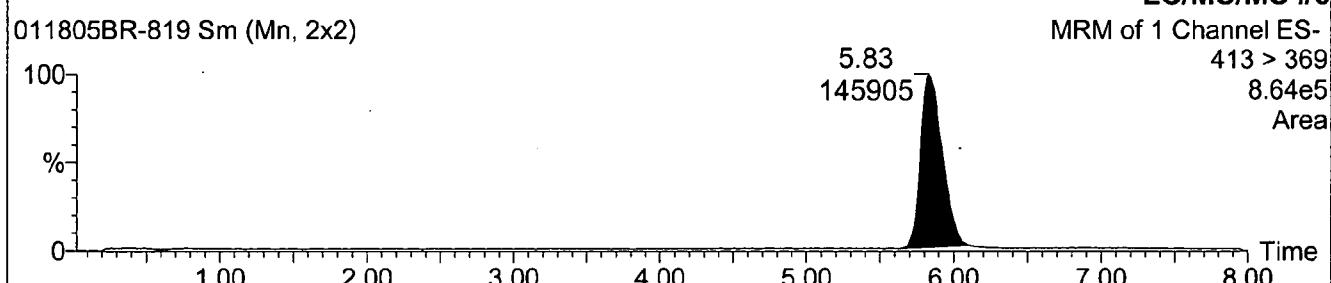
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

8.64e5

Area



Quantify Sample Report

Page 20

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-820

Text:

1: PFOA

L4258-3

011805BR-820 Sm (Mn, 2x2)

100

%

0

1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 Time

5.82  
1151178

21-Jan-2005 03:21:57

LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

6.70e6

Area

Quantify Sample Report

Page 21

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal-

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-821

Text:

1: PFOA

L4258-3 Rep

21-Jan-2005 03:37:34

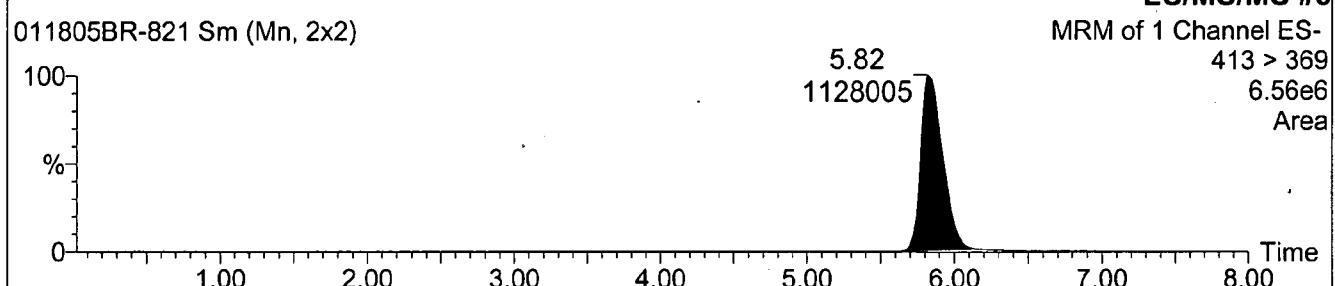
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

6.56e6

Area



Quantify Sample Report

Page 22

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-822

Text:

1: PFOA

XC011805-3, 100 ng/L standard

21-Jan-2005 03:53:18

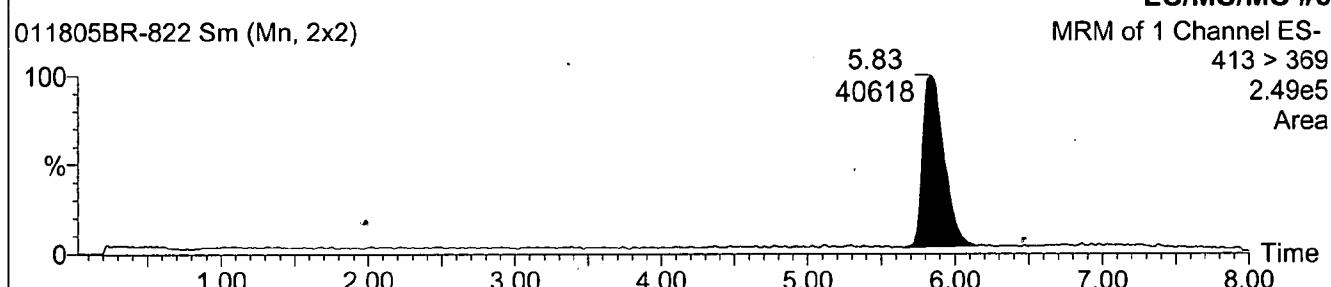
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

2.49e5

Area



Quantify Sample Report

Page 23

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

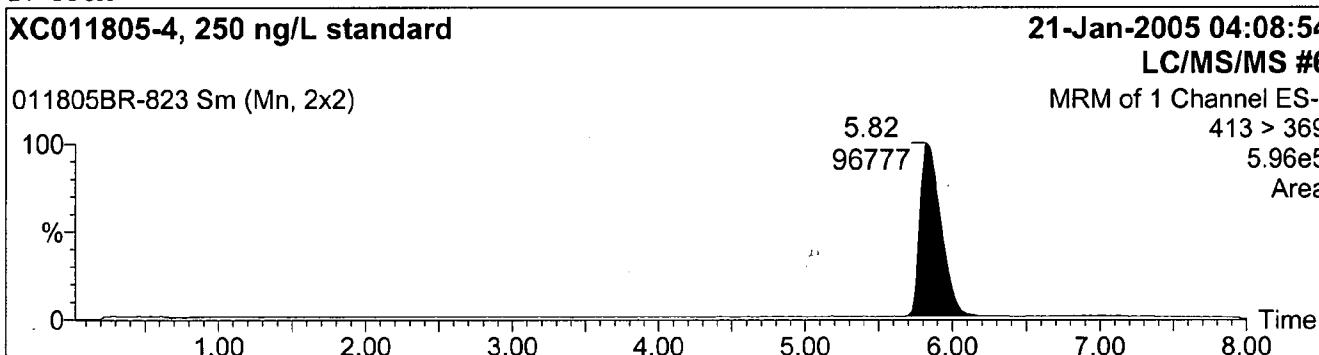
Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-823

Text:

1: PFOA



Quantify Sample Report

Page 24

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-824

Text:

1: PFOA

L4258-4, DF=10

21-Jan-2005 04:24:38

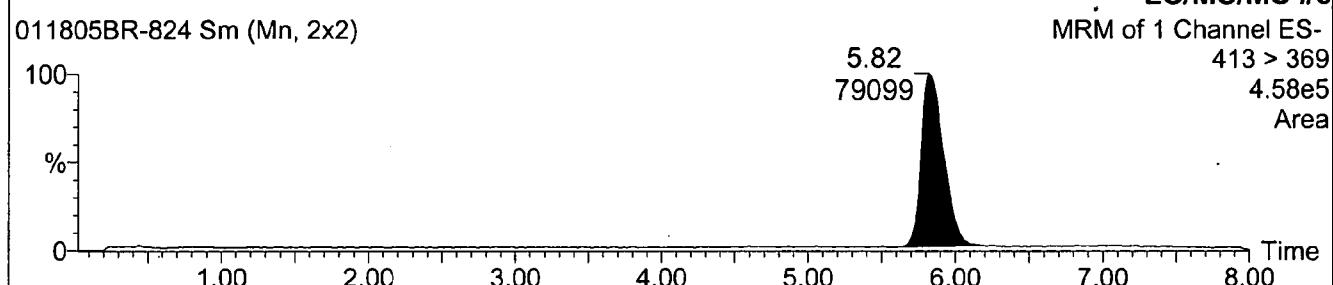
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

4.58e5

Area



Quantify Sample Report

Page 25

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-825

Text:

1: PFOA

L4258-4 Rep, DF=10

21-Jan-2005 04:40:19

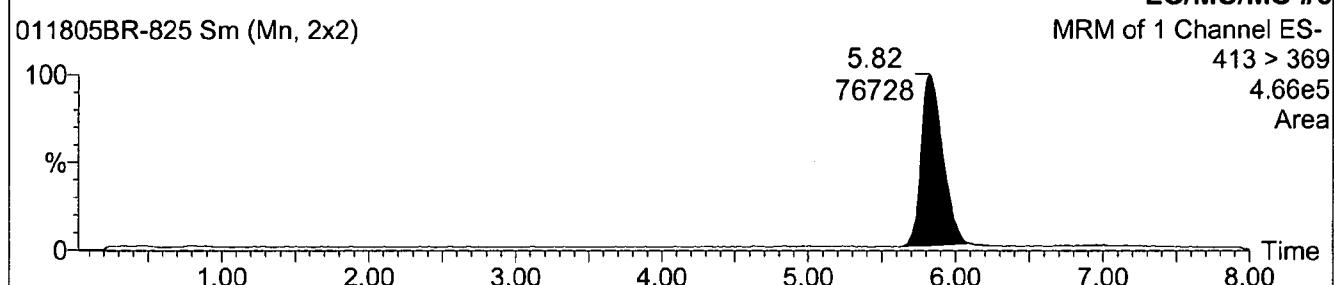
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

4.66e5

Area



Quantify Sample Report

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Page 26

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

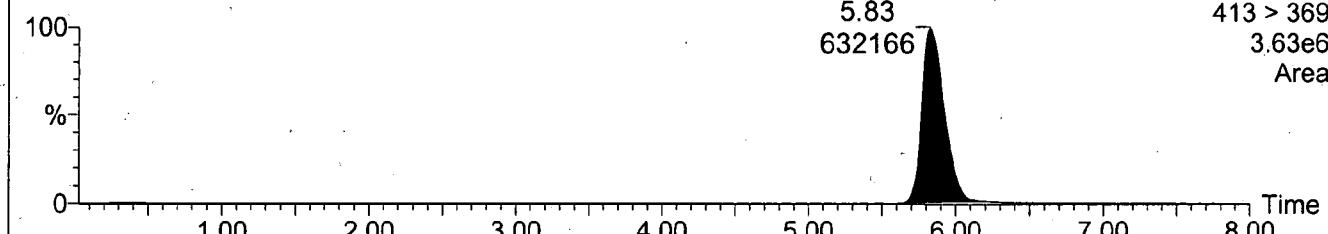
Name: 011805BR-826

Text:

1: PFOA

L4258-4

011805BR-826 Sm (Mn, 2x2)



Quantify Sample Report

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Page 27

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-827

Text:

1: PFOA

L4258-4 Rep

21-Jan-2005 05:11:46

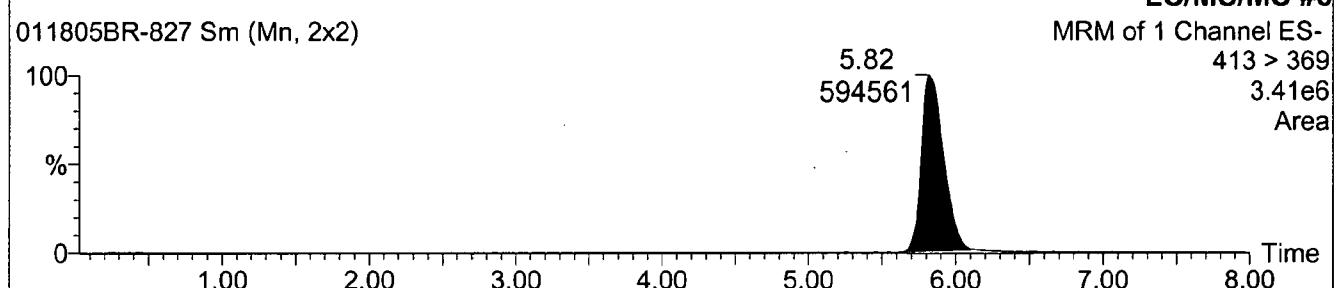
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

3.41e6

Area



Quantify Sample Report

Page 28

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-828

Text:

1: PFOA

L4258-5, DF=10

21-Jan-2005 05:27:29

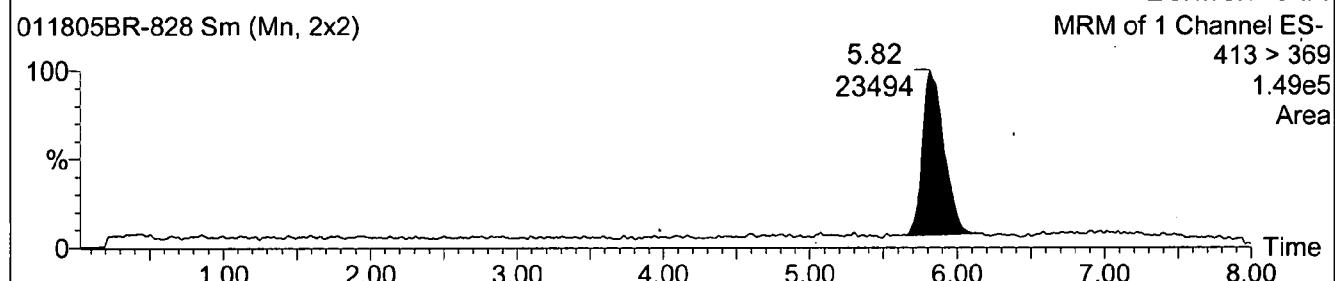
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.49e5

Area



Quantify Sample Report

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Page 29

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-829

Text:

1: PFOA

L4258-5 Rep, DF=10

21-Jan-2005 05:43:15

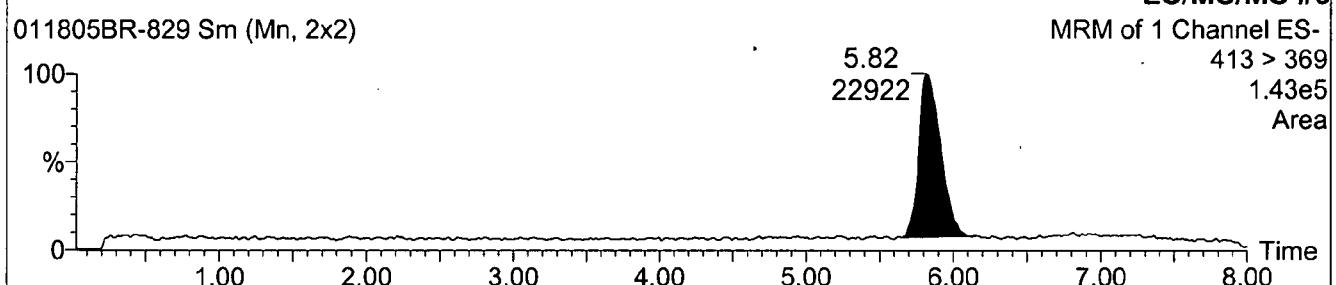
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.43e5

Area



Quantify Sample Report

Page 30

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wa

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

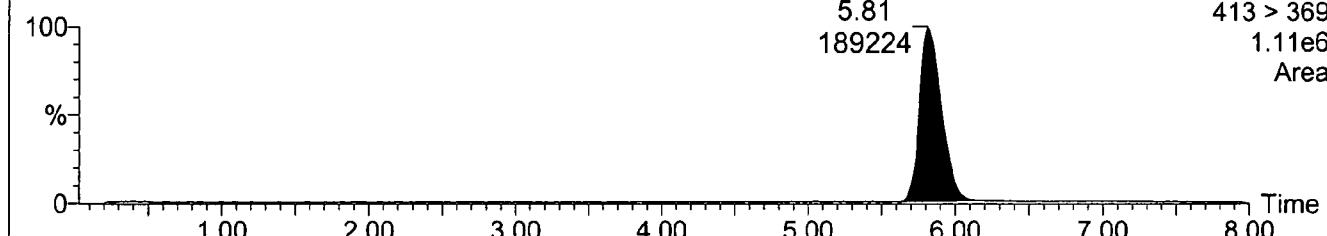
Name: 011805BR-830

Text:

1: PFOA

L4258-5

011805BR-830 Sm (Mn, 2x2)



Quantify Sample Report

Page 31

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Water

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-831

Text:

1: PFOA

L4258-5 Rep

21-Jan-2005 06:14:52

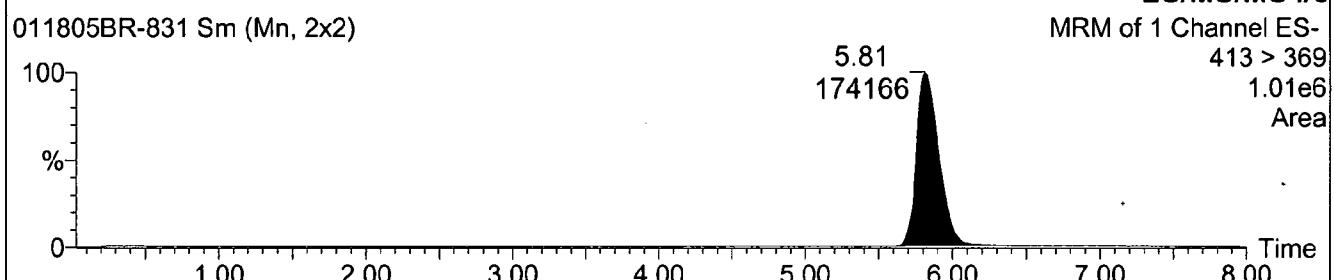
LC/MS/MS #6

MRM of 1 Channel ES-

413 > 369

1.01e6

Area



Quantify Sample Report

Study No.: L4258, Set No.: 011805BR, Ext.Date: 01/18/05, Analyst: K.Risha

Page 32

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wal

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-832

Text:

1: PFOA

**XC011805-5, 500 ng/L standard**

**21-Jan-2005 06:30:36**

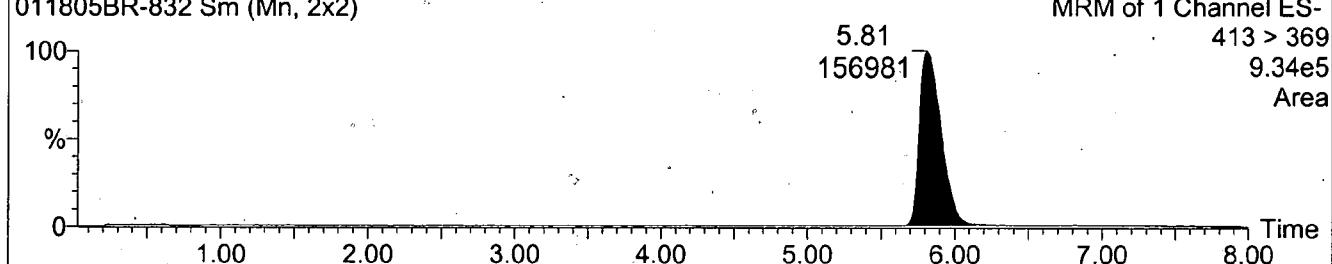
**LC/MS/MS #6**

MRM of 1 Channel ES-

413 > 369

9.34e5

Area



Quantify Sample Report

Page 33

Study No.:L4258, Set No.:011805BR, Ext.Date:01/18/05, Analyst:K.Risha

Sample List: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\SampleDB\011805BR Taconic Wat

Last modified: Fri Jan 21 14:44:54 2005

Method: P:\Data\LCMSMS6\Masslynx\Fluorochemicals.PRO\MethDB\PFOA 010705

Last modified: Mon Jan 10 13:38:21 2005

Job Code:

Printed: Mon Jan 24 06:30:16 2005

Name: 011805BR-833

Text:

1: PFOA

